

# **EXHIBIT 10**

**FROM:** John Daniel<John.Daniel@maxspecialty.com>  
**TO:** Max RIC Property Submissions  
**DATE:** 1/28/2009 11:28:00 AM  
**SUBJECT:** FW: [WARNING : MESSAGE ENCRYPTED] Signal International - Eff: 1/30/09  
**ATTACHMENTS:** Signal 2008 Primary Quote.pdf;Willis Property Submission.doc;2009 SOV.xls;2009 RMS Workbook.xls;Inspection Report.pdf;

---

Max Specialty Insurance Company  
9020 Stony Point Parkway  
Richmond, VA 23235  
804-287-6983

---

**From:** Tom Krause  
**Sent:** Wednesday, January 28, 2009 11:24 AM  
**To:** John Daniel  
**Cc:** Trip Morano  
**Subject:** FW: [WARNING : MESSAGE ENCRYPTED] Signal International - Eff: 1/30/09  
**Importance:** High

JD  
Can you rush clear this one for Trip? Layering noted below

---

**From:** Tom Cesare [mailto:Tom.Cesare@amwins.com]  
**Sent:** Wednesday, January 28, 2009 10:56 AM  
**To:** Tom Cesare  
**Subject:** [WARNING : MESSAGE ENCRYPTED] Signal International - Eff: 1/30/09  
**Importance:** High

We have a short fuse 1/30/09 account that we have some history on. The short story is:

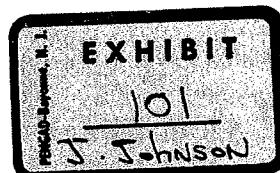
- For the 1/30/07 – 1/30/08 year Lexington wrote the \$10mm primary with AmWINS NY writing the \$15mm ex \$10mm with 3 wholesale markets.
- On 1/30/08 AmWINS NY quoted to competitive \$10mm primary with Westchester with the \$15mm ex \$10mm with the Incumbent 3 markets.
- Lexington in there desire to keep the business and increase their primary eventually got the renewal order on a \$25mm primary.
- Anyway under the saying that it is better to be lucky then good (at least for the AmWINS markets who Lex beat), Hurricane Ike hit Lex for \$22mm!

Our retailer called me yesterday and advised that all along Lex was indicating that they where going to offer the \$25mm renewal @ \$1,400,000 which was up from \$1,150,000 expiring but yesterday they advised that they would only offer a \$10mm primary @ \$1,750,000!

We have Westchester who still likes this risk poised to offer a \$10mm primary @ \$1,400,000 though they may have to cut back to a \$5mm primary @ \$1,000,000 (if the referral underwriter does not go along with the NY Managers \$10mm primary).

In any event we need for you to look at the following layering in order of preference:

- 1) \$10mm ex \$10mm @ \$350,000 layer
- 2) \$5mm ex \$10mm @ \$225,000 layer
- 3) \$5mm ex \$15mm @ \$125,000 layer
- 4) \$5mm ex \$5mm @ \$400,000 layer



We are enclosing:

- A) Westchester's \$10mm quote from last year this will be the same except:
  - 1) The Named Storm/Storm Surge ded will be 5%/\$250,000 min (as opposed to \$1mm flat).
  - 2) You can exclude Flood and Earthquake excess of \$10mm but Named Storm and ensuing Storm Surge will be included in the Wind Peril.
- B) Willis' 2009 Property Submission
- C) The current 2009 SOV
- D) An RMS Workbook that should be helpful to your modelers.
- E) The most recent inspection report.

For clearance purposes:

**Named Insured:** Signal International, LLC  
**Mailing Address:** PO Box 7007  
Pascagoula MS 39568

Please review and advise quickly if you can authorize in these excess layers, time is short but this is one of those last minute deals that will bind.

Regards  
Tom

Tom Cesare  
Executive Vice President  
Property Department Manager  
AmWINS Brokerage of New York  
Office 212-858-8925  
Cell 917-859-6988  
Email: [Tom.Cesare@amwins.com](mailto:Tom.Cesare@amwins.com)

01/24/2008 15:08 FAX 2126218885

ACE Financial

001/008



Quote # 01K3LG 001  
 Binder Policy #

TO: Tom Cesare  
COMPANY: AmWins of New York  
FAX: 704-943-9015

FROM:  
DATE SENT:  
BOUND DATE:

RE: Signal International, LLC

Thank you for submitting the captioned account. Please review this quotation carefully as the terms and conditions may be different than requested.

Effective Date: 01/30/2008 to 01/30/2009

Company: Westchester Surplus Lines Insurance Company

Perils: Risks of direct physical loss or damage including Earthquake and Flood, but including storm surge with other exclusions per policy forms and as specified below

Coverage: Buildings, Business Personal Property including Stock, Business Income including Extra Expense, Dry Docks, Piers, Bulkheads, Wharfs, Cranes, M/s Equipment — and others as more clearly defined in Willis Manuscript form

Limit of Liability: Primary \$10,000,000 Per occurrence except as respects the following sublimits:

01/24/2008 15:08 FAX 2128218885

ACE Financial

002/008

**Sub-Limits:**

1. \$500,000 Accounts Receivable
2. \$5,000,000 Automatic Coverage on Newly Acquired Property, Property Damage and "Time Element" combined
3. \$500,000 Contamination Cleanup, land and water, in the aggregate during any Policy year
4. \$500,000 Contingent Time Element
5. \$5,000,000 Contractors Equipment Leased, Borrowed, Rented or Loaned \$5,000,000 or 25% of the Property Damage and "Time Element" Debris Removal and Cost of Cleanup
7. \$5,000,000 Demolition and Increased Cost of Construction Property Damage and Law, Ordinance or Regulation "Time Element" combined
8. \$10,000,000 Earthquake in the aggregate during any Policy year, Property Damage and Time Element combined
9. \$1,000,000 Electronic Media and Electronic Data, Property Damage and "Time Element" combined
10. \$250,000 Expediting Expense
11. \$10,000,000 Flood in the aggregate during any Policy year, Property Damage and Time Element combined. This aggregate does not apply to Flood resulting from a Named Storm
12. \$100,000 Fine Arts
13. \$1,000,000 Interruption by Civil or Military Authority
14. \$1,000,000 Loss of Ingress or Egress
15. \$1,500,000 Miscellaneous Unreported Locations - Property Damage and Time Element combined per location
16. \$2,500,000 Omissions and Errors
17. \$2,500,000 Service Interruption, Property Damage and "Time Element" combined - excluding all Transmission and Distribution lines greater than 1,000 feet from insured premises
18. \$5,000,000 Property in the Course of Construction, Property Damage and "Time Element" combined
19. \$5,000,000 Property in Transit
20. \$150,000 per occurrence / \$2,500 per day Equipment Rental Reimbursement

**Time Element:**

1. Extended Period of Indemnity - 183 Consecutive Days
2. Automatic Coverage on Newly Acquired Property - 120 Consecutive Days
3. Interruption by Civil or Military Authority - 45 Consecutive Days
4. Loss of Ingress or Egress - 45 Consecutive Days
5. Ordinary Payroll - 90 Consecutive Days

*All sublimits are per occurrence unless noted. None of these sublimits serve to increase the limit of liability, but instead are contained within it*

**Locations/Territory:** Territory is defined as the continental United States. Locations insured are as per schedule on file with the company

**TIV:** \$192,026,293

ALL INFORMATION CONTAINED

TRIPM 0085

01/24/2008 15:08 FAX 2128218665

ACE Financial

003/008



**Coinsurance:** Property: Nil%      **Valuation:** Property: Replacement Cost  
 Bus Income: Nil%      Bus Income: Actual Loss Sustained  
 Exceptions: See Form Provisions for exceptions

**Premium:** \$1,000,000      **Includes Terrorism subject to exclusions, including but not limited to Nuclear, Biological and Chemical exclusions.**      **25% Minimum Earned Premium**  
 + 100,000 Terrorism  
 \$1,100,000

Any applicable taxes, surcharges or countersignature fees etc. are in addition to the above quoted figures. Please be advised that you are expected to comply with all state law requirements and your office is responsible for making State Surplus Lines Filings and remitting the applicable Surplus Lines taxes.

**Deductibles:** \$100,000 Per Occurrence except :

- a. Time Element Seven Times the Average Daily Value
  - i. Time Element Deductible is in addition to any other deductible and is applied separately to all losses except those caused by Named Wind and Flood.
- b. Named Windstorm \$1,000,000 Per Occurrence as respects Named Storm including resulting Flood losses from storm surge - Combined Property Damage and Time element
- c. Flood: 5% per Occurrence of Total insured values at location(s) affected at time of loss subject to \$1,000,000 Minimum as respects Flood not resulting from a Named Storm - Combined Property Damage and Time Element
- d. Bulkheads - \$200,000 per occurrence
- e. Dry Docks - 5% of the scheduled value of the dry dock involved in the loss or damage, subject to a minimum of \$250,000 any one occurrence
- f. Leased/Rented Equipment \$100,000 or less - \$5,000 per occurrence
- g. Leased/Rented Equipment greater than \$100,000 - \$25,000 per occurrence

TRIPM 0086

TRIPM 0086

01/24/2008 15:08 FAX 2126218865

ACE Financial

004/008

**Policy Forms:**

Willis Manuscript Form, including the following provisions:

1. Definition of Named Windstorm to include wind driven water associated with a Named Windstorm (Storm Surge)
2. Definition of Flood to exclude wind driven water associated with a Named Storm.
3. Flood Limit \$10,000,000 per occurrence and annual aggregate including 100 year Flood Plains
4. EDP Hardware included with no sublimit (EDP sublimit applies to Media and Data)
5. Contractors Equipment to include while on water at the insured's shipyards or while in transit between yards
6. Watercraft exclusion shall not apply to the dry-dock known as Dual Carrier while Dual Carrier is located within 5 miles of the insured's premises. This exclusion shall not apply to other dry-docks while located within 1 mile of the insured's premises.
7. Valuation – All Property Replacement cost basis except the dry-docks at ACV / Time Element Actual Loss Sustained.
8. Boiler & Machinery to be DIC/DOC over a Travelers B&M policy.
9. Paragraph #3 of the Transit Extension (page 55 – 56) needs to be deleted:  
*This Policy does not insure export shipments after loading on board an overseas vessel, watercraft, or aircraft, or after ocean marine insurance attaches, whichever occurs first; or import shipments prior to discharge from an overseas vessel, watercraft, or aircraft, or until ocean marine insurance terminates, whichever occurs later. However, this exclusion shall not apply to:*
  - a. *Ferry shipments transporting over-the-road conveyances to, from, and between countries in Continental Europe, the United Kingdom, and Ireland;*
  - b. *Air and waterborne shipments within a single country; or air and inland waterway shipments to, from, and between countries in Continental Europe.*
10. Section X: Global Insurance Clauses need to be deleted.
11. Any reference to Foreign Territories needs to be deleted.

**Cancellation:**

30 Days except 10 Days for non payment of premium.

**Subject to:**

Inspection and compliance with any recommendations deemed essential by the Company.

**Mandatory Exclusions and Amendments:**

All policy form exclusions including the following ACE Exclusions: Pollution &amp; Contamination, Asbestos, Electronic Data/Cyber risk, Mold/Fungus, Nuclear Biological and Chemical Exclusions and Earthquake Sprinkler Leakage (unless otherwise specified in this quotation), Occurrence Limit of Liability Endorsement, Definition of Occurrence Endorsement.

**Remarks:**

Attached please find a Disclosure Notice required by The Federal Risk Insurance Act of 2002 ("The Act"). The premium charge for the terrorism coverage is set forth on the Disclosure Notice. This forms part of the overall premium quoted above for the Company's participation.

01/24/2008 15:10 FAX 2126218685

ACE Financial

005/008



**Additional  
Remarks:**

Please be advised that we do not review Certificates of Insurance issued by you, or by any party, relating to this policy of insurance either for content or accuracy. Accordingly, we request that you do not provide copies of certificates to us for review or for our records. Authority is granted to you for the limited purpose of issuing unmodified ACORD Certificates (ACORD 25-S for Casualty and ACORD 24 for Property and Inland Marine) only. It is your responsibility to see that any Certificate provides an accurate representation of the coverage form and endorsements applicable to this policy at the time the Certificate is issued. Any modification of the approved ACORD forms specifically set forth above, or the issuance of a non-approved Certificate of Insurance ACORD or other is prohibited. Certificates of Insurance may only be issued as a matter of information. You have no authority by virtue of a Certificate or otherwise, to amend, extend or otherwise alter coverage afforded under this policy. Certificates of Insurance are never recognized as endorsements or policy change requests. You must submit a separate written request if an endorsement or policy change (including but not limited to adding additional insureds, loss payees and mortgagees and/or alteration of notice requirements for cancellation) is requested. In the event a policy change is requested, the underwriter will advise if the request is acceptable to the Company.

**Quotation**

Expiration Date: 01/30/2008

DocuSign Envelope ID: 50000000-0000-0000-0000-000000000000

TRIPM 0088



# **Signal International**

## **Mississippi & Texas Facilities**

**PROPERTY RISK ASSESSMENT REPORT**  
SHAI Project No. 01-2008-12-09

Final Version 2.0

*Prepared: January 2009*

*Stephen Heller & Associates Inc.*

Professional Risk Consulting - Insurance / Brokerage / Industry/ Energy / Utilities / Petrochemical / Chemical/ Refining/ Industries  
19423 Leafwood Lane; Houston, TX 77084; Tel: (281) 579-2004; [sheller@esnirisk.com](mailto:sheller@esnirisk.com)

TRIPM 0089

**Notice**

Stephen Heller & Associates, Inc. (SHAI) made every reasonable effort to perform the work contained herein, in a manner consistent with high professional standards.

The work was conducted on the basis of information made available to SHAI. Neither SHAI nor any person acting on its behalf makes any warranty or representation, expressed or implied, with respect to the accuracy, completeness, or usefulness of this information. All observations, conclusions, and recommendations contained herein are relevant only to the project, and should not be applied to any other facility or operation.

Any third party use of this report or any information or conclusions contained therein shall be at the user's sole risk. Such use shall constitute an agreement by the user to release, defend, and indemnify SHAI from, and against any, and all liability in connection therewith (including any liability for special, indirect, incidental, or consequential damages), regardless of how such liability may arise.

SHAI regards the work that it has done as advisory in nature. The responsibility for the use and implementation of the conclusions and/or recommendations, when applicable, contained herein rests entirely with the client.

**Acknowledgements**

The following people were instrumental in gathering information, answering questions, and assisted SHAI in order to prepare this report:

Lisa Spears, Signal International Corporate Risk Manager  
Collin Stevens, Signal International Loss Prevention Manager  
Stephen Schwartz, Signal International Security Manager  
Dorian Geraci, Global Special Risks, Houston

Their efforts and hospitality are greatly appreciated.

**TABLE OF CONTENTS**

<b>Executive Summary .....</b>	<b>5</b>
<b>Risk Summary .....</b>	<b>6</b>
<b>Summary of Operations, Ownership, Staffing .....</b>	<b>9</b>
<b>Pascagoula Site Descriptions .....</b>	<b>13</b>
<b>East Yard .....</b>	<b>13</b>
<b>West Yard .....</b>	<b>17</b>
<b>Pascagoula (East / West Yard) Site Risk Characteristics .....</b>	<b>20</b>
<b>Texas Facility Site Descriptions .....</b>	<b>23</b>
<b>Orange Yard .....</b>	<b>23</b>
<b>Dock Yard .....</b>	<b>25</b>
<b>North Yard .....</b>	<b>28</b>
<b>South Yard .....</b>	<b>30</b>
<b>Texas Facilities Site Risk Characteristics .....</b>	<b>32</b>
<b>Loss Estimate Discussions .....</b>	<b>35</b>
<b>Loss Estimates .....</b>	<b>36</b>
<b>Probable Maximum Loss (PML) .....</b>	<b>36</b>
<b>Maximum Foreseeable Loss (MFL) .....</b>	<b>36</b>
<b>Natural Hazard Loss Estimates .....</b>	<b>38</b>
<b>Recommendations/Observations .....</b>	<b>39</b>
<b>Wind and Storm Surge Analysis (Additional Information is provided in the Appendix) .....</b>	<b>40</b>
<b>Analysis Summary .....</b>	<b>40</b>
<b>Analysis Description .....</b>	<b>41</b>
<b>Tropical Storm / Hurricane History &amp; Exposure .....</b>	<b>42</b>
<b>Texas Facilities .....</b>	<b>42</b>
<b>Mississippi Facilities .....</b>	<b>45</b>

**Appendices:**

- References
- Facilities Building Data
- Wind and Surge Analysis Information (Flood Zone / Water Surge Data)
- Signal International Organizational Chart
- Various Signal Loss Prevention Programs
  - EHS Management Plan Table of Contents
  - EHS Manual Table of Contents
  - Fire Response Plan Table of Contents
  - Incident Plan
  - JRA – Permit to Work System
- Photographs

List of Tables

TABLE 1: EAST YARD DATA .....	14
TABLE 2: EAST YARD VESSELS .....	15
TABLE 3: WEST YARD DATA .....	18
TABLE 4: ORANGE YARD DATA .....	24
TABLE 5: ORANGE VESSELS .....	24
TABLE 6: DOCK YARD DATA .....	26
TABLE 7: NORTH YARD DATA .....	28
TABLE 8: SOUTH YARD DATA .....	30
TABLE 9: PML LOSS ESTIMATES .....	36
TABLE 10: MFL LOSS ESTIMATES .....	37
TABLE 11: WIND AND WATER SURGE LOSS ESTIMATES .....	41

List of Figures

FIGURE 1: MAP OF SIGNAL LOCATIONS .....	10
FIGURE 2: EAST YARD LAYOUT MAJOR BUILDINGS .....	13
FIGURE 3: WEST YARD LAYOUT MAJOR BUILDINGS .....	17
FIGURE 4: ORANGE YARD LAYOUT MAJOR BUILDINGS .....	23
FIGURE 5: DOCKYARD BUILDING DATA .....	27
FIGURE 6: NORTH YARD BUILDING DATA .....	29
FIGURE 7: SOUTH YARD BUILDING DATA .....	31
FIGURE 8: HISTORICAL HURRICANE TRACK STORM SURGE DATA (WWW.MAPS.CSC.NOAA.GOV/HURRICANES/)(NOTE (HURRICANE IKE IS NOT INCLUDED IN THIS DATA). .....	43
FIGURE 9: HISTORICAL HURRICANE TRACK STORM SURGE DATA (WWW.MAPS.CSC.NOAA.GOV/HURRICANES/). .....	45

## **Executive Summary**

SHAI, as requested by Signal International, carried out a risk review at their principle Mississippi and Texas facilities. The onsite surveys were conducted December 8 & 9, 2008.

The evaluation of the facilities focused on Fire/Allied and Machinery Breakdown Perils, as they relate to property damage and business interruption. This Risk Analysis Report has been prepared to assist underwriters in evaluating the exposures, operations, and loss prevention for the Signal International gulf coast properties. The report is based on information obtained and observations made during the site visit. No tests of fire protection equipment were conducted during this survey.

This risk review provides a systematic, independent assessment, with emphasis on the following:

- Construction, operations and protection features for each facility reviewed;
- Risk exposure potential to operations from fire and equipment breakdown;
- Estimation of loss estimate potentials resulting from risk exposures; and
- Description of exposure and potential estimated loss estimates due to wind and water surge from tropical storm exposure.

The report includes information for the following facilities:

- Pascagoula East Yard and Resident Housing
- Pascagoula West Yard
- Port Arthur Dock Yard
- Orange Yard
- Port Arthur North Yard
- Port Arthur South Yard

**Risk Summary**

Signal International is a diversified marine construction firm engaged in the repair, upgrading and conversion of offshore oil and gas rigs, and the construction and repair of civil and governmental marine transports. Signal operates six shipyards and employs up to 3,000 people.

It is the opinion of the writer that Signal International, at the time of the surveys, has implemented an effective loss prevention program, as described within this report. There were no recommendations developed from this review. Previous insurance recommendations reported in 2003 are provided for historical purposes and are completed.

The activities conducted at these facilities are recognized by the marine and fabrication services industry as proven and well recognized technologies which are typical and consistent with the industry.

**Key Risk Summary Characteristics:**

- The inherent hazards are typical to the marine repair and fabrication industry and are considered moderate for the use of metal fabrication and platform staging equipment, e.g. cranes, welders, cutters, electrical and dry dock equipment.
- The sites have implemented loss preventive measures (e.g. equipment design, training, maintenance, inspection, safe work practices, etc.) and protective features (e.g. fire protection systems, etc.) in place to address hazards typical to the occupancy.
- The sites reviewed have open layouts, which reduces the likelihood of a large-scale accumulated loss.
- The most probable exposure for property and business interruption would be from machinery breakdown, collapse or fatigue damage related to large crane and dry dock structural equipment, combined with associated damage to other adjacent equipment or common operations.
- The sites, under the current owner's insurance program, have a good loss record and demonstrate strength in risk reduction and control.
- The physical design of the facilities incorporates a combination of redundancies, equipment sparing, alarm and shutdown controls, and environmental control systems, which reduce the potential property damage or business interruption potential.
- Business interruption can be mitigated due to redundancy in operations between the Texas and Mississippi operations.

- Facilities are located within 20 miles of the Gulf Coast and have the potential exposure to the effects of wind and flooding due to tropical storms and hurricanes. Insurance claims have resulted following hurricanes Ike (2008) and Katrina (2005). Signal has implemented improvements following each event (lessons learned) at their facilities to mitigate future exposures.
- The maximum foreseeable loss (MFL) or worst case scenario for these facilities considers a sinking or structural collapse of a dry dock at the Pascagoula East Yard or Port Arthur Dock Yard or the accumulated effects of a hurricane to the Pascagoula or Orange / Port Arthur properties. Other possible worst case situations would be complete loss of the East Yard Administration Building or Resident Housing Facilities due to fire.
- Other probable maximum losses (PML) large loss situations could be due other equipment failures related to drydock, cranes, other heavy lifting equipment, welders or plasma cutters.

Notable loss preventions and safety improvements noted during the survey included:

- Established OSHA safety goals in 2008 which includes every Signal employee attending a shipyard safety meeting addressing the safety management steps to be employed for that day's work. These meetings and safety management techniques are conducted throughout all of Signal's operations as developed by Signal's Environmental, Health & Safety and production departments and are endorsed by Signal management.
- Signal is acknowledged by the Shipbuilder's Council of America for the annual safety award presented to the operations with the lowest Total Recordable OSHA Incident Rate. Signal has received the Excellence in Safety Award for three consecutive years and has surpassed the US shipyard industry for OSHA total recordable incident rates by a factor of twenty times better, which recognizes Signal to be one of the safest shipyards in the marine fabrication industry.
- Improvement to facilities and management programs plans following lessons learned from Hurricane Ike (2008) and Katrina / Rita (2005) include:
  - Improvement to hurricane response plans; i.e. relocation of key equipment; equipment securing strategy; elevation of key machinery and electrical equipment;
  - Structural improvements to help mitigate higher elevations of water accumulation during tropical storms; newly constructed areas or repaired facilities previously damaged during flooding;
  - Improvements for securing large marine equipment docked at bulk heads during storm events;

- o Portable electrical equipment modified to allow the equipment to be elevated prior to a tropical storm;
- o Electrical substation damaged during previous storms are built on elevated platforms; and
- o Orange Facility: Major electrical conduit runs relocated from previous lower build elevation to 12 feet or higher throughout the facility. This modification is based on a lesson learned from previous highest flooded elevations of 8-10 feet.

Overall, the Signal International facilities reviewed are rated as an "Above Average" risk as it relates to insurance property and boiler machinery coverage.

The opinions expressed regarding the quality of risk are based on similar industries located throughout the gulf coast United States.

The ratings are further defined as:

Good = Best practices consistent with industry leader

Above Average = Acceptable standards including some industry best practices

Average = Acceptable standards, no major recommendations

Below Average = Some practices are less than acceptable, with major recommendations

Poor = Significant deficiencies exist

**Summary of Operations, Ownership, Staffing**

Signal International, LLC is a leading Gulf of Mexico provider of marine and fabrication services. Signal has four yards in Texas and two in Mississippi and provides services such as:

- New construction of Mobile Offshore Drilling and Production Units (MODUs and MOPUs).
- Upgrading, conversions, overhauls, repairs, and surveys of MODUs and MOPUs.
- On-location work (e.g. mooring system enhancements) done on board.
- Fabrication to military specifications of ship modules for US Navy vessels.
- Dry docking of large and small vessels to facilitate work on lower hulls, pontoons, propulsion/thruster systems, etc.

Signals' offshore segment customers consist primarily of drilling contractors that drill offshore exploratory and development wells for oil and gas companies throughout the world, particularly in the Gulf of Mexico, the North Sea, Eastern Canada, West Africa, South America, other offshore areas of the world, and other parties that intend to lease newly constructed rigs to drilling contractors. Signal is expanding their core business in the area of modular construction and fabrication for the U.S. Navy.

Semisubmersible and jackup rigs, large and small, can be dry docked at Signal International's yards both in Mississippi and Texas. Work such as pontoon or spud repair, steel replacement, thruster/propulsion repair, addition of sponsons and blisters, is routinely carried out on the dry docks. Signal provides the docking plan, the cribbing and the engineers and dockmasters to ensure safe, secure and ready access to the rig's below-waterline extremities. The dock yard also facilitates the fabrication of large marine modules that can be skidded or lifted off for transport to another site for mating with the host vessel.

**Overall facilities Capabilities:**

- Covered and open fabrication capability
- Dry docks
- Wide deepwater channel access to GOM
- Water frontage
- High capacity mobile cranes
- Inside blasting, burning, welding and painting equipment
- Machines shops
- Pipe fabrication shops

- **Module platens**
- **Testing and calibration equipment**
- **Fixed and portable office space**
- **Warehouses**
- **Jolner fabrication and outfitting facilities**
- **Jigs and fixture for work related to such activities as jackup leg fabrication**

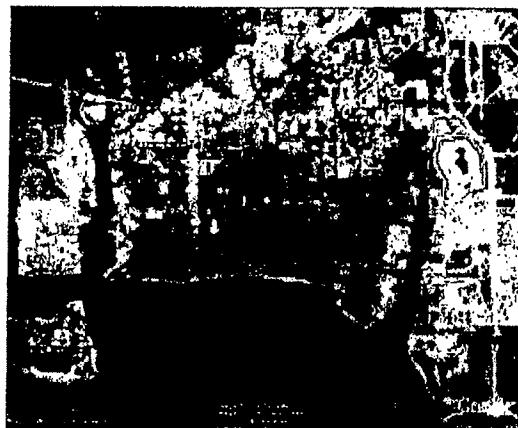
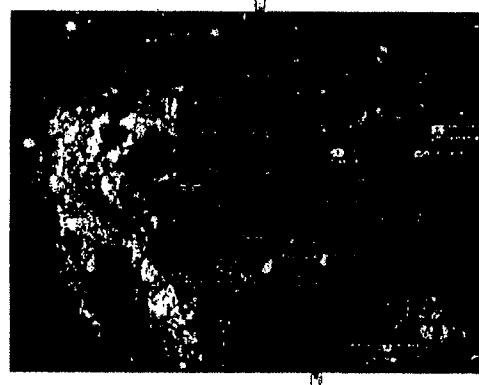
Further details of Signal's capabilities can be found at their website: [www.signalint.com](http://www.signalint.com).

Figure 1: Map of Signal Locations



Texas Yard Locations:

- Orange
- Dock
- North
- South



Pascagoula, Mississippi Locations:

- East
- West

Signal International LLC  
SHAI Project No. 01-2008-12-09

Final Version 2.0

Property Risk Assessment  
January 2009

**Facilities are located in the Gulf Coast region of the United States and include:**

**Major Mississippi Facilities:**

The Mississippi facilities include The Pascagoula East Yard, which is a rig manufacturing facility, and the Pascagoula West Yard. Both facilities can provide offshore rig repair, upgrade and conversion and are located to allow unrestricted access to the Gulf of Mexico to accommodate large marine projects. These Mississippi facilities have a towable dual carrier dry dock. Adjacent properties to Pascagoula West Yard include an office, training and worker camp facilities. The Pascagoula East facility has employed over 1,500 people. Manpower employed varies due to the seasonal nature of the work with the highest employed levels between summer and early winter months.

**Major Texas Facilities:**

The Texas facilities include the Orange Yard and Port Arthur North/South/Dock Yards.

The Orange Yard is a heavy marine metal fabrication plant that has similar capacities as described for the Pascagoula East Yard. This yard was formerly owned by Trinity Shipyard and American Bridge. The Port Arthur Dock Yard was formerly operated by Texas Drydock, and it used for major modifications, conversions, repair and drydocking of semi-submersibles, jackup drilling rigs, drillships. The North and South Yards are used for offshore marine ship and rig repair, upgrade and conversion. The Dock Yard includes a normally non-towable drydock.

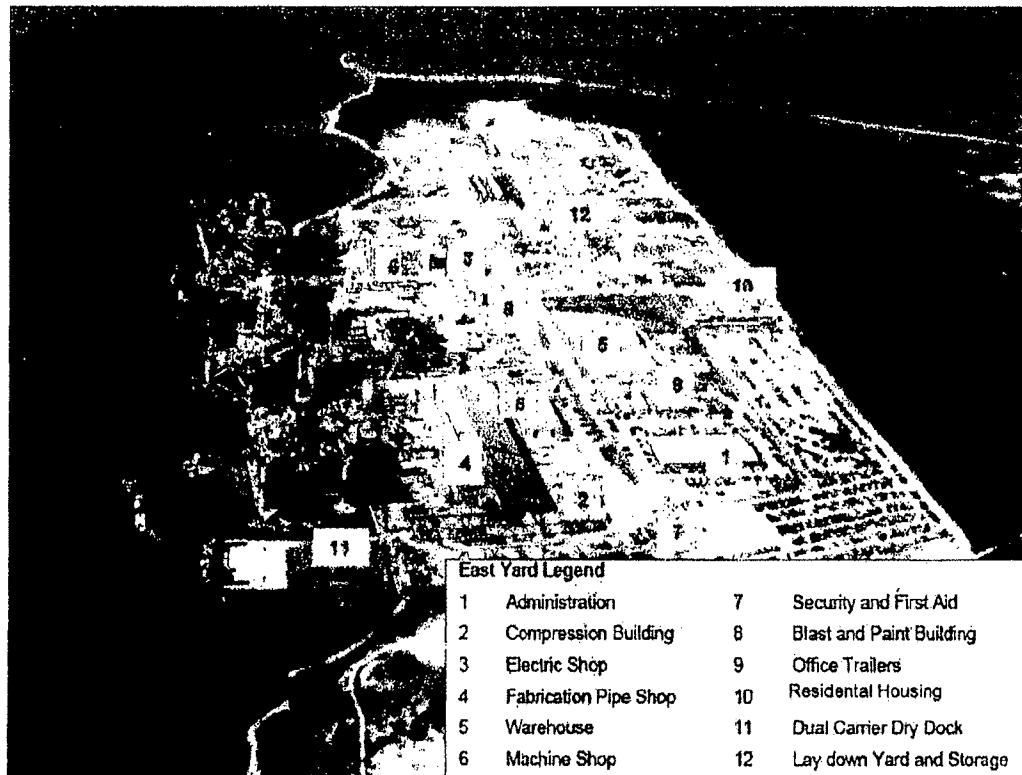
**Pascagoula Site Descriptions****East Yard**

The Pascagoula East Yard operations are located in Pascagoula, Mississippi. The facility is situated on the Gulf of Mexico on the Bayou Casotte Harbor. The harbor can accommodate a wide variety of cargo and is supported by a strong transportation infrastructure.

The site is within a couple miles of Interstate 10 and the State Highway system. Pascagoula rail service begins at the terminal of Bayou Casotte Harbor. Rail service connections are the CSXT and Mississippi Export Railroad, which connects to Illinois Central Railroad.

The East yard has dockside and unobstructed access to the Gulf of Mexico, on Bayou Cassotte, located eight miles from the Sea Buoy via a 300' wide, and 38' depth channel.

Figure 2: East Yard Layout Major Buildings



Primary facility features are listed in the table below.

Table 1: East Yard Data

East Yard	
	601 Bayou Casotte Parkway Pascagoula, MS 39561
Total Acreage:	94 acres
Total Building Area:	273,054 sq. ft.
Water Frontage:	2,000 ft.
Water Depth:	35 ft. MLLW
Distance to Open Sea:	13.5 nm
Fabrication Area:	
	Covered: 100,000 sq. ft.
	Outside: 362,000 sq. ft.
Quayside Facilities	
Outfitting/Repair Docks	
	Type: Concrete bulkhead
	Length: 2,000 ft.
	Water Depth: 35 ft.
Principle Site Equipment	
Cranes/Cherry Pickers/Forklifts	
3 ea; 150 ton	Mobile Manitowoc 4000
2 ea; 300 ton	Mobile Manitowoc M250
2 ea; 125 ton	Washington Gantry Crane
2 ea; 300 ton	Floating Manitowoc 4100 Ringer
8 ea; 15 ton	Cherry Pickers
6 ea; 2.5-12 ton	Forklifts
14 ea; 15 - 40 ton	Overhead Bridge Cranes
1 ea; 40 ton	Bridge-Kraco
Major Shop (Fabrication) Equipment	
1 ea	Wheel-A-Brator, BCP Auto Blast Machine
1 ea	Wheel-A-Brator, BCP Auto Paint Machine
2 ea	Piranha Iron Worker
1 ea	N/C Plasma Burning Table
1 ea	N/C Flame Burner
1 ea	One-sided Butt Welder
1 ea	Angle Stiffener Filter
1 ea	Stiffener Welder
310 ft.	Panel Line
Machine Shop Equipment	
1 ea	Schless Boring Mill-11' Vertical Travel, 55' Horizontal Travel
1 ea	Gray Boring Mill- 7' Vertical, 25' Horizontal
1 ea	Cincinnati Floor Mill- 6' Vertical, 4' Horizontal
3 ea	Small Mills
1 ea	17" Tum-nado Southbed Lathe
1 ea	Monarch Lathe, 10' Bed, 96° Center
1 ea	Kingston 21"-27" Gap Bed Lathe
1 ea	Drill Presses
Dual Carrier Drydock	Towable drydock in the Gulf of Mexico with heavy lift capacity

**Pascagoula (East / West Yard) Site Risk Characteristics**

ASSESSMENTS PASCAGOULA		Comments – For Both West/East Yards ; Except Where Indicated Otherwise
SITE LAYOUT / FIRE DIVISION		<p>Spacing between building and to other properties is well laid out separating different occupancies, e.g. equipment, fabrication and repair, offices, warehouses and residential houses (Resident Housing East Yard Only). Each individual area is considered a separate fire division.</p> <p>Typical runoff drainage is to the water way adjacent to the property. This operation does not require extensive piping or liquid handling systems.</p> <p>East Yard: Congestion is considered light in the repair and fabrication areas and moderate to heavy in the Resident Housing area. An incident should be contained to the area of development, i.e. specific equipment area, office building or Resident Housing. The East Yard has a varying uphill elevation change from the waterway to the facilities.</p> <p>West Yard: Congestion is considered light throughout. The West Yard has flat terrain in the fabrication and main yard and uphill elevation changes out to the training building.</p>
CONSTRUCTION		<p>A full listing of buildings construction and occupancy is provided in the Appendix. The majority of the building square footage is primarily non combustible construction with the exception of the office Resident Housing buildings (East Yard) which are primarily combustible construction (see Appendix).</p> <p>Facilities are built in accordance with Insurance/ASME/Building codes for windstorm/temperature extremes/flooding/hurricane potential anticipated for geographic area.</p> <p>Computer controlled cutting machines are used in the Fabrication Shop. Equipment is controlled by the crafts person operating the machine with typical safety shutoff systems. The equipment does not operate unmanned. Emergency shut off "kill switches" are specific to the equipment being used such as welders, cutting machines, etc.</p> <p>There is no significant use of liquid storage tankage at the facilities.</p> <p>Vehicular protection is provided for above ground systems. Primary roads and parking areas are paved.</p>
LOADING/UNLOADING		<p>Receipt of raw materials and distribution of products can be performed by rail, truck, or marine vessel. Bulk receipts would be plate steel and equipment and parts associated with rig work.</p> <p>Fabricated onshore components are transferred by crane for attachment to the rigs. Large lifts are performed by a gantry cranes, e.g. land, floating and mobile.</p>
OTHER STORAGE		<p>The East Yard has three separate warehouses provided on site. Two of the three are leased to clients. One warehouse contains consumables and equipment, mostly metal parts. During the survey, minimal storage was noted in the leased spaces. Each warehouse is considered a single fire area. The West Yard has smaller storage building areas with minimal content.</p> <p>The East Yard has a large area south of the Resident Housing facilities used for outside storage of metal material and idle equipment.</p>
OPERATIONS/PROCESS		<p>This operation primarily handles the fabrication, retrofit and repair of heavy metal fixtures and equipment associated with offshore drilling rigs and associated marine structures. With the exception of the warehouses, Resident Housing and offices, the majority of principle building are considered metal working occupancies in which metal is the basic material involved in the manufacturing/fabrication of attachments or portions of drilling rigs or similar marine style objects. This includes occupancies typical to machine, metal working, cutting &amp; welding, assembly metal and metal repair shops. The East Yard Resident Housing is a residential area consisting of connected mobile homes.</p> <p>The primary exposures from the operations area which could result in insurance claim would relate to major equipment breakdown, collapse of crane, dropping of large heavy object or collision at the dock. The primary exposure to fire would be in the Resident Housing area due to a fire.</p>

The following vessels in the table below are located at the site.

Table 2: East Yard Vessels

Vessel	Type	Size	Material	Description
N/V Maggie D	Tug	50x20.5	Steel	Towboat/Single Skin/Self Propelled
Miss Tiff	Crane Barge	150x60x10	Steel	Deck Barge/Single Skin
MS61	Deck Barge	60x26x5	Steel	Barge/Single Skin
MS64	Deck Barge	60x26x6	Steel	Barge/Single Skin
20' Yamaha 115	Custom	20'	Aluminum	Tender/Single Skin/Self Propelled
21' Yamaha 115	Custom	21'	Aluminum	Tender/Single Skin/Self Propelled
20' Suzuki 80 HP	Custom	20'	Aluminum	Tender/Single Skin/Self Propelled
Dual Carrier	Submersible DD	368x203x25	Steel	Barge/Single Skin (Dry)
Mr. T	DeckCargo Barge w/ringer crane	140'x54x9'10"	Steel	Deck Barge/Single Skin
Deck Barge	Deck Barge	50x20	Steel	Deck Barge/Single Skin
Deck Barge	Deck Barge	50x20	Steel	Deck Barge/Single Skin
Deck Barge	Deck Barge	50x20	Steel	Deck Barge/Single Skin
Deck Barge	Deck Barge	50x20	Steel	Deck Barge/Single Skin

Other Pascagoula East Yard features include:

- Design provides for extensive use of automated construction equipment, floating and dockside cranes, panel lines, launch-ways and reinforced bulkhead dock space.
- The maximum lift at 25 meters out from quayside is 200 tons using a single crane. However, cranes are used in various combinations to achieve lifts exceeding single crane capacities.
- Electricity (480/3 phase/60 Hz/800 amps), fresh water, salt water, and compressed air, at 110 psi, are available dockside.
- Mobile cranes are used to erect panels into subassemblies; mobile, fixed and barge-mounted cranes are used to erect subassemblies; and mobile transporters are used to move subassemblies (any size module up to 525 Tons). The site has two mobile transporters.
- The covered facility offers full machine shop services.
- Pipe pre-fabrication is carried out in a covered shop and is serviced by a 15 ton overhead crane. The shop contains eight (8) welding stations with Sub Arc, Mig, Tig and Flux Core welding capabilities. Pipe bending machine capabilities up to 4". Over 4" can be subcontracted.
- The Electrical Shop facility is utilized for electrical maintenance of all tools, cords, welding machines and other equipment throughout the yard. Temporary lighting, telephone lines, distribution racks and shore power feeder installations for customers are also coordinated from this department where materials required for these installations are maintained.
- There is a new constructed blasting and painting building (which is used for shop

blasting and primer coat). There is also a separate area where protective coatings can be applied in the outside storage and sandblast area.

- The site has three 20,000 sq. ft. warehouses, which provide covered, secure storage for yard consumables, weather sensitive items, and owner-furnished equipment. Two of the warehouses are leased.
- An office building area houses executive, administrative, project and engineering personnel provided at the East Yard. This area is the corporate office location for Signal International. Other office space is located in the production shops, combined with auxiliary trailers, accommodate the production staff.
- Owner and regulatory offices are accommodated by portable on-site trailers. Other trailers are provided by clients and vendors for their use.
- There is a Resident Housing facility used to house contract workers. This area is fenced and separated from the main operations and includes a parking lot. Facilities include 21 bunkhouses and facilities for kitchen, laundry, lounge, shower, office-storage and a guard house.
- The East Yard facility has a dual carrier dry dock which is fully self-contained and transportable. It can service both East and West yards. Orientation of the drydock can be changed to use floating and dockside cranes.

The dimensions of the Dual Carrier dry dock are:

- Clear deck 368' x 203'
- Capacity 30,000 DWT
- Sill height 25'
- Maximum draft 20'

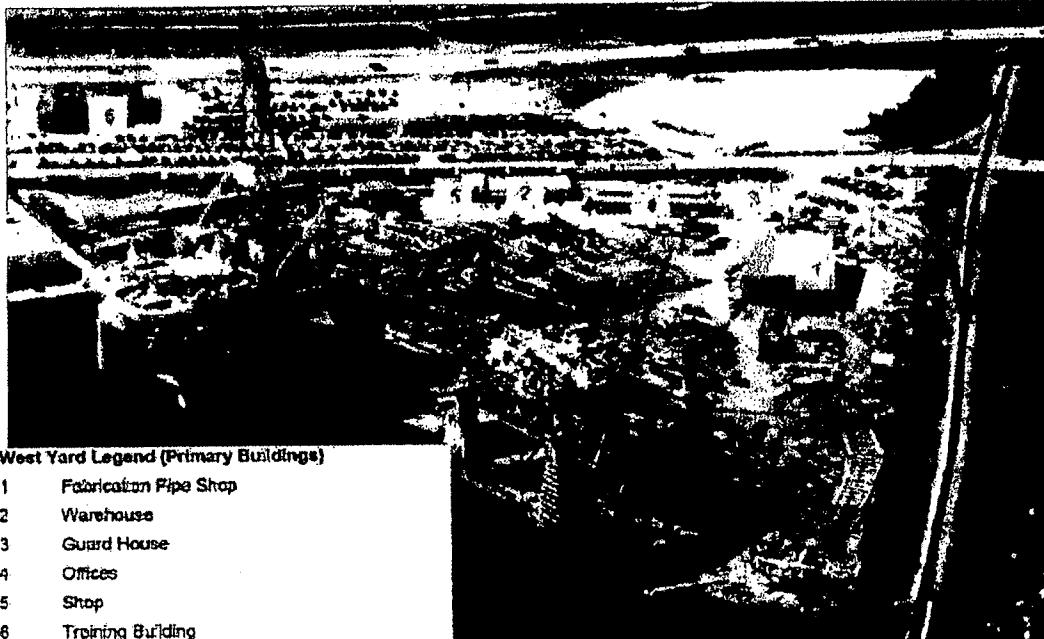
- The panel shop is fully equipped and is served by overhead magnetic cranes. It can process approximately 48,000 tons of steel per year and can handle panels up to 50'x80', with a maximum assembly weight of 80 tons. Panel units are pre-fabricated on a raised assembly line complete with rollers, hydraulic plate leveling, stiffener clamping machines and eight (8) stiffener arc welders. Also located in this shop is the N/C cutting machine equipped with two (2) heads and plasma marking. The main panel shop has 55' x 25' doors and is equipped with 2 x 40 ton overhead cranes with a 25' hook height. The adjacent processing area is served by a 15 ton overhead crane.

**West Yard**

The Pascagoula West Yard facility is situated on the Gulf of Mexico along the Pascagoula River Harbor. The harbor can accommodate a wide variety of cargo and is supported by a strong transportation infrastructure.

The site is within a couple miles of Interstate 10 and the State Highway system. Adjacent properties to the West Yard include an office (rented and insured by tenant) and training buildings at Jerry St. PE Highway.

Figure 3: West Yard Layout Major Buildings



The Pascagoula West facility is located on the Pascagoula River with a 350' wide, direct access channel (with a water depth of 38') to the Gulf of Mexico. The facility has a concrete cap pile reinforced dock at the north end of the Pascagoula River turning basin.

Primary facility features are listed in the table below.

Table 3: West Yard Data

West Yard	
3500 Port Authority Road Pascagoula, MS 39567	
Total Acreage:	13 acres
Total Building Area:	45,718 sq. ft.
Water Frontage:	1,100 ft.
Water Depth:	38 ft. MLLW
Distance to Open Sea:	16.2 nm
Fabrication Area:	Covered: 47,550 sq. ft. Outside: 39,000 sq. ft.
Quayside Facilities	
Outfitting/Repair Docks	
Type:	Concrete bulkhead
Length:	1,100 ft.
Water Depth:	38 ft.
Principle Site Equipment	
Fork Lift Equipment (4) Cherry Pickers (5) Portable Personnel Elevators (4) Floating Cranes (2) 150 t Shop Gantry Cranes: • Fab Shop 2 - 20 ton • Pipe Shop 1: 15 ton • Platen 1 - 20 ton/1 - 10 ton  4600 Ringer Crane Misc. Barges and Tug (shared with East Yard)	

Other Pascagoula East Yard features include:

- Facilities consist of the main berthing dock at the north end of the Port, where the main fabrication and pipe shops are located together with module fabrication platens, and the blasting and paint yard.
- A covered structural shop building is serviced by two (2) 10-ton overhead gantry cranes. It is equipped with a Template Burning Machine and a chop saw.
- Adjacent to the Structural Shop is a pipe shop. This covered shop is used for pipe pre-fabrication and is serviced by a 5-ton overhead Gantry crane and a 2-ton Jib crane. It is equipped with an NC Burning Machine and an Ironworker.
- There are three concrete fabrication platens used as an assembly area. Platens are open and serviced by all yard equipment from forklifts to 200-ton crawler cranes. Fabrication platens are utilized for assembly areas where practical.

- **Assembly and erection can be carried out on the dock directly in front of the rig being worked.**
- The electrical maintenance shop is utilized for electrical maintenance of all tools, cords, welding machines and other equipment throughout the yard.
- Projects can be serviced by 150 and 200-ton crawler cranes as well as a 300-ton barge-mounted ringer and a 600-ton land-based ringer Manitowoc crane.
- Electricity (480/3 phase/60 Hz/800 amps), fresh water, salt water, and compressed air, at 110 psi, are available dockside.
- There is a Production office which can accommodate project management and support service offices. Space is available on site for portable office space which accommodates controls, construction superintendents, QA/QC, various customer and customer-subcontract personnel.
- An approximate 20,000 square foot Administration office building is located adjacent to the yard on Jerry St PE Highway. This office is leased and insured by a different company.
- An approximate 12,000 square feet training facility, which also can be used for administrative and other production and engineering offices, is located adjacent to the site on Jerry St PE Highway next to the vacant office.

ASSESSMENTS		Comments – For Both West/East Yards ; Except Where Indicated Otherwise
<b>PASCAGOULA</b>		
<b>FIXED ELECTRICAL SYSTEMS</b>		<p>Main power is supplied by a local power authority and is considered reliable. Loss of power results in shut-down of the site. Back-up power can be provided to operate portions of the site using portable generation.</p> <p>Several small to moderate sized transformers are located on site and owned by the owner. These are reported to be PCB free and are readily available.</p>
<b>UTILITIES</b>		<p>Other typical utilities include compressed air provided by small portable equipment and domestic water provided from the public system. Natural gas is used and piped from a local provider.</p> <p>Liquid carbon dioxide and oxygen (provided by third party) are stored in tanks in a segregated outside area and used for welding and cutting processes.</p>
<b>MAINTENANCE, REPAIRS &amp; INSPECTION</b>		<p>The maintenance department is comprised of multiple highly qualified crafts: electrical, welder tool worker, and instrumentation. The department at the site handles the majority of day to day maintenance activities, with the majority of the duties related to metal fabrication. Larger projects are completed by qualified contractors.</p> <p>Inspection, testing, and maintenance frequencies are established using manufacturers' recommendations and industry guidelines.</p> <p>Non-destructive examination (NDE) techniques are utilized as necessary for structural and piping integrity inspections.</p> <p>Overall, the programs are established and use written records maintained for equipment and procedures. The maintenance system is run by a ticket system. The majority of the historical records at these facilities were destroyed during hurricanes Katrina/Rita. The facility is in the process of converting over to a computerized records system. No specific date for completion of record system was indicated.</p> <p>The site has practices and procedures in place to maintain fire protection systems for systems and equipment. The program utilizes training, procedures, inspections and tests, deficiency corrections, and quality assurance. The maintenance program uses a combination of preventive and predictive maintenance techniques.</p>
<b>CONTRACTORS</b>		<p>The site does not use resident contractors. Living facilities (Resident Housing) are provided at the East Plant for general laborers.</p> <p>Specialized contractors are used for large, special jobs depending on the current work projects. Onsite training and supervision are provided for specific tasks for contractors.</p>
<b>OPERATION</b>		<p>Operational procedures are used for major equipment operations. Best Practice between the Mississippi and Texas locations are used as guided per corporate directives. Operating procedures are written and are available for typical operations.</p> <p>Formal training for new and existing employees, competency testing and certification; refresher training; safety and technical training are provided.</p> <p>Facility personnel involved in hazardous waste management, such as storage of off spec product and response to emergencies, complete a program of classroom instruction or on the job training that teach them to perform their duties.</p>
<b>WORK PERMIT</b>		<p>A work permits system is in place for welding, work order, lockout/tagout, confined space, etc. On major jobs, blanket permits are typically given. Areas typically considered a welding occupancy do not require permitting.</p>
<b>HOUSEKEEPING</b>		<p>Critical areas were clear and non-congested with idle material or equipment.</p>
<b>EMERGENCY RESPONSE</b>		<p>The local fire department and local police are the emergency response for the facilities. A written emergency procedure coordinated with local fire department is in place under the existing plan. The site has an excellent emergency preparedness program and procedures for hurricanes.</p>
<b>FIRE BRIGADE RESPONSE</b>		<p>The site provides typical hazardous material response coordination. The site is considered an incipient emergency response. Fire response for the facility is considered reliable. Access to the facility is considered good.</p>

ASSESSMENTS		Comments – For Both West/East Yards ; Except Where Indicated Otherwise
<b>PASCAGOULA</b>		The fire department conducts fire inspections of the East Yard Resident Housing facilities and West Yard Training Building and has historically provided recommendations, which Signal has complied with.
<b>MANUAL FIRE EXTINGUISHING</b>		<p>Hand and wheeled fire extinguishers are located throughout.</p> <p>Fire water is provided by the public water system. At the East Yard, an onsite distribution system consisting of a combination of 8 inch and 6 inch pipes is provided. In addition, the East Yard has several hydrants located throughout the facility. There is a hydrant available at the Resident Housing facilities entrance.</p> <p>The West Yard has fire water available from the adjacent road hydrants.</p>
<b>FIRE PROTECTION SPRINKLER SYSTEMS / DETECTION</b>		<p>Sprinkler systems are provided for main office building areas at the East Yard and Training Building at the West Yard. These systems are hydraulically designed. There is a sprinkler system located in the common areas of the Resident Housing facilities, i.e. laundry room, recreational room and cafeteria. There are no other sprinkler systems at the East or West Yards.</p> <p>The Resident Housing facilities are provided with a smoke detection system throughout, which alarms to a constantly attended location. In addition, fire hose stations are located throughout this area.</p>
<b>EXPOSURES</b>		<p>The East Yard facility is surrounded in three directions by land and to the east by the Bayou Casotte Channel water way. The dockside is approximately 2000 feet long. Immediately across the channel is a Chevron Refinery approximately 1,800 feet away. Mississippi First Chemical is located approximately one mile away across the channel to the north. Exposures from other directions are open land for several hundred yards.</p> <p>The West Yard The facility is surrounded in three directions by land and to the east by the Pascagoula River water way. The dockside is approximately 1100 feet long. Immediately across the channel are several non-hazardous facilities. Exposures from the south are Port Authority non-hazardous bulk storage warehouses. To the north is open land for several hundred yards.</p> <p>Both Yards are exposed to potential water surge from adjacent water ways and flooding from severe tropical storms. This issue is further discussed in the storm analysis report section.</p>
<b>INTRUSION ARSON TERRORISM</b>		<p>The portions of the property accessible to the public are fenced with access by a 24 hour manned gate. The facilities are accessible from an immediate public road. Vandalism or malicious mischief has not been a problem in past years. Good exterior and perimeter lighting is provided.</p> <p>The sites are occupied at all times by workers or by a guard who makes rounds for the East Yard and a guard at the main West Yard facilities (West Yard is currently idle). The West Yard area training building is located outside the fenced West Yard operation on the west side of the property, and the training building is locked and unmanned during non-operating hours. This building is visible from the West Yard guard building.</p>

**Texas Facility Site Descriptions****Orange Yard**

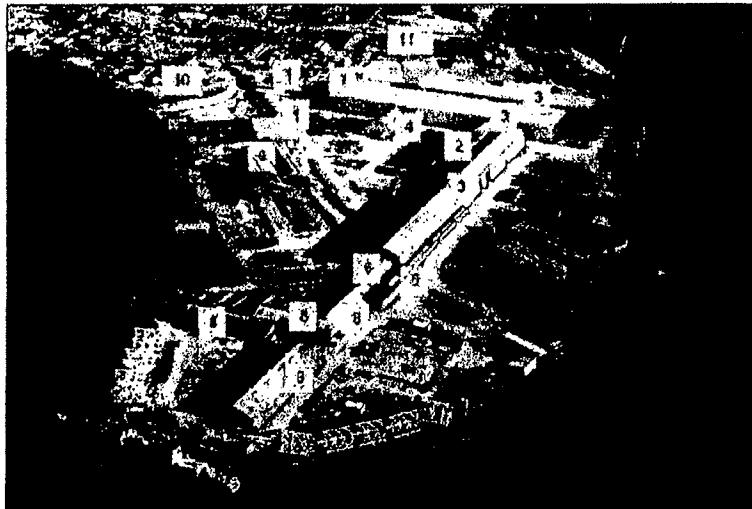
The Orange Yard is a 77 acre facility located in Orange, TX. The yard is used to build mobile offshore drilling and production units as well as components for other rigs. The site is situated near the Gulf of Mexico up river on the Sabine River. The harbor can accommodate a wide variety of cargo and is supported by a strong transportation infrastructure.

The site is near Interstate 10 and the State Highway system. Terminal service is available to the site.

Under former ownership by American Bridge, Inc. (USS subsidiary), the site employed up to 1,800 people who produced multiple marine and offshore products, pressure vessels, bridge girders and other heavy industry products. Government war ships were constructed here during the World War period. The heavy metal fabrication site was acquired in December 1992, by a Trinity Industries subsidiary, which fabricated large diameter pressure vessels there until May 1996. In July 1996, Trinity Marine Products, another Trinity Industries subsidiary began manufacturing barges and barge parts at the site. In May 1998, Trinity's shipyard in Orange, TX was purchased by TDI-Halter L.P, a subsidiary of Halter Marine Group, Inc., prior to Friede Goldman Offshore (FGO) involvement.

This facility was in full operation at the time of the survey. Portions of the facility were undergoing repair from Hurricane Ike (2008).

Figure 4: Orange Yard Layout Major Buildings



Orange Yard	6	Pipe Warehouse
1	7	Pre Assembly
Blast and Paint Buildings	8	Warehouse
2	9	Storage Building
Fabrication Shop East	10	Offices
3	11	Buckley Office and Shop
Main Fabrication Shops		
4		
Maintenance Building		
5		
Storage Building		

Primary facility features are listed in the table below:

Table 4: Orange Yard Data

Orange Yard	
	91 W. Front St. Orange, TX 77630
Total Acreage:	82 acres
Total Building Area:	589,458 sq. ft.
Water Frontage:	5,700 ft.
Water Depth:	25 ft. MLLW
Distance to Open Sea:	34.3 nm
Fabrication Area:	
	Covered: 450,000 sq. ft.
	Outside: 20 acres
Quayside Facilities	
Outfitting/Repair Docks	
	Type: Steel Bhd
	Length: 623 ft.
	Water Depth: 22 ft.
Principle Site Equipment	
Cranes/Cherry Pickers/Forklifts	
1 ea; 150 ton	Crawler Crane
1 ea; 100 ton	Crawler Crane
1 ea; 400 ton	Stiff Leg Derrick Barge
1 ea; 100 ton	Revolving Leg Derrick Barge
1 ea; 40 ton	Break Press
Multiple; 35-450 ton	Shop Gantry Cranes
Multiple; 1-15 ton	Assorted Forklifts
Multiple	Assorted Iron Worker Stations (boring presses, band saws, plate shear)
1 ea	Wheel-a-Brator Automated Blast & Prime Machine
1 ea	Panel Line Fabrication consisting of: Series-arc welding machine with: 45-foot magnet bed, 4-head stiffener lifter/positioner, 6-head stiffener welder
3 ea	N/C Plasma Cutters

The following vessels are located at the site:

Table 5: Orange Vessels

Vessel	Description	Dimension	Const.	Description
Quida	Tug	46x24x9	Steel	Towboat/Single Skin/Self Propelled
Pelican	Derrick Barge	198x70x11.5	Steel	Deck Barge/Single Skin
Big Bessie	Derrick Barge	191x83x12	Steel	Deck Barge/Single Skin
Dan B	Tug	25x14x5	Steel	Towboat/Single Skin/Self Propelled
	Deck Barge	34'x120'x7"	Steel	GRT Required
	Boat, "V" Weldbilt	18x56"	Aluminum	Tender/Single Skin/Self Propelled
Monark Boat	Runabout	19x7x3.5	Aluminum	Tender/Single Skin/Self Propelled
Drydock, AFDB-5	Pontoon/Wingwalls	240x101x23.6	Steel	Drydock/Single Skin
DB	Deck	120x40x8	Steel	Barge/Single
TDD1	Work Barge	30x60x5	Steel	Barge/Single Skin
TDD3	Work Barge	24x13x4	Steel	Barge/Single Skin
Miss Kathy	Deck Barge	36x110x7	Steel	Barge/Single Skin

**Other Orange Yard features include:**

- The facility has extensive repair and fabrication facilities with a complete panel line, similar to the Pascagoula East Yard. Panel units are pre-fabricated on a raised assembly line complete with rollers, hydraulic plate leveling, stiffener clamping machines and a stiffener arc welder. In addition, this shop includes an N/C cutting machine and plasma marking.
- The panel shop adjacent to the repair and fabrication areas are fully equipped with overhead cranes.
- Machine shop capabilities.
- Pipe pre-fabrication is carried out in a covered shop and is serviced by an overhead crane. The shop contains welding stations with various welding capabilities.
- The Electrical Shop is utilized for electrical maintenance of tools, cords, welding machines and other equipment throughout the yard. Temporary lighting, telephone lines, distribution racks and shore power feeder installations for customers are also coordinated from this department where materials required for these installations are maintained. The site has a fully equipped paint shop.
- Five warehouses provide covered, secure storage for yard consumables, weather sensitive items, and owner-furnished equipment.
- The main office building area houses executive, administrative, project and engineering personnel. Other office space is located throughout the production shops, including auxiliary trailers and small office buildings to accommodate the production staff.

**Dock Yard**

The Dock Yard operations consist of the former Friede Goldman Offshore (FGO) facilities located in Port Arthur, Texas. This facility is located on the Neches Waterway. The site is situated within 15 miles of the Gulf of Mexico and has waterway access.

This site is intended to be used to build mobile offshore drilling and production units as well as components for other rigs. This yard is to receive fabricated parts from the Orange Yard which are then installed on the dry docked marine equipment.

At the time of the survey the facility had minimal activity due to workload scheduling. Minimal damage occurred at the site as a result of Hurricane Ike (2008).

The Dock Yard was established by Bethlehem Steel in 1985, and acquired by Texas Drydock, Inc., in 1995. Dock Yard was later owned by HAM Offshore Services and then FGO. This yard has a floating dry dock and is owned by the City of Port Arthur (one of the eight sections is owned by FGO). The facility was designed to specialize in major modifications, conversions, repair and dry docking of semi-submersibles, jackup drilling rigs, drillships, FPSO and FPS.

The facility has a 64,000 ton dry dock that operates in rig mode, with 363 feet between wing walls and is 414 feet long. This versatility affords the ability to drydock nearly every

type of drilling rig. It is located on the Sabine Neches Waterway near Port Arthur and Pleasure Island.

Primary facility features are listed in the table below.

Table 6: Dock Yard Data

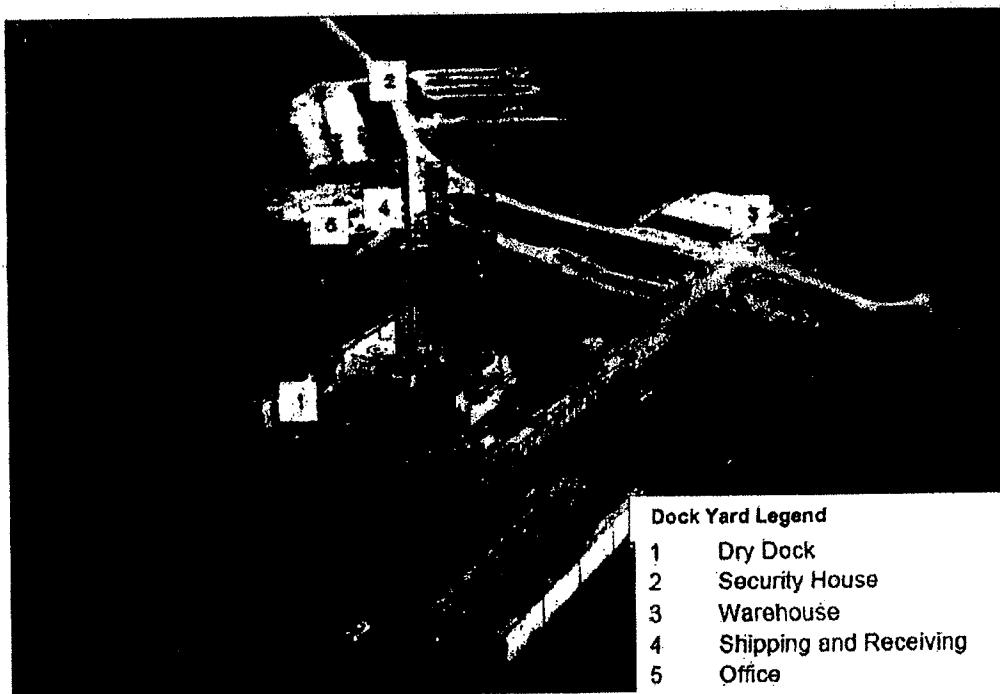
Dock Yard	
	2500 Martin Luther King , Jr. Drive Port Arthur, TX 77640
Total Acreage:	100 acres
Total Building Area:	222,554 square feet
Water Frontage:	4,961 ft.
Water Depth:	55 ft. MLLW
Distance to Open Sea:	14.8 nm
Fabrication Area:	
Covered:	
Outside:	
<b>Quayside Facilities</b>	
<b>Outfitting/Repair Docks</b>	
Type:	Berthing Pier
Length:	111.5 ft.
Water Depth:	25 ft.
Principle Site Equipment:	Mult-Wheel Transport Forklift Trucks Cherry Pickers Portable Personnel Elevators Floating Cranes (2) 1-400 t stiff leg, (1) 100 t revolving

The following vessels listed in the table below are associated with the Dock Yard:

Other Dock Yard features include:

- Two warehouses provide covered, secure storage for yard consumables, weather sensitive items, and owner-furnished equipment. Currently these are mostly empty.
- The site contains several small office and trailer buildings and offices for administrative, engineering, safety, environmental, production, contractors, and customers use.

**Figure 5: Dock Yard Building Data**



**North Yard**

The North operations consist of the former Friede Goldman Offshore (FGO) facilities located in Port Arthur, Texas. This facility is located on the Port Arthur Turning Basin and has waterway access. This site is intended to be used to repair and build mobile offshore drilling and production units as well as components for other rigs. The site is situated within 15 miles of the Gulf of Mexico.

North Yard was owned by HAM Offshore Services before FGO. This yard is to receive fabricated parts from the Orange Yard which are then installed on the docked marine equipment.

At the time of the survey this yard was idle and under repair from damage occurred during Hurricane Ike (2008).

Primary facility features are listed in the table below.

Table 7: North Yard Data

North Yard	
	2350 S. Gulfway Dr. Port Arthur, TX 77640
Total Acreage:	17 acres
Total Building Area:	14212 sq. ft.
Water Frontage:	1,590 ft.
Water Depth:	25 ft. MLLW
Distance to Open Sea:	14.8 nm
Fabrication Area:	33,000 sq. ft.
<b>Quayside Facilities</b>	
<b>Outfitting/Repair Docks</b>	
Type:	Steel Blvd
Length:	879 ft.
Water Depth:	25 ft.
<b>Principle Site Equipment</b>	
	Multi-Wheel Transport Forklift Trucks Cherry Pickers Portable Personnel Elevators Floating Cranes (2) 1-400t stiff leg, (1) 100t revolving

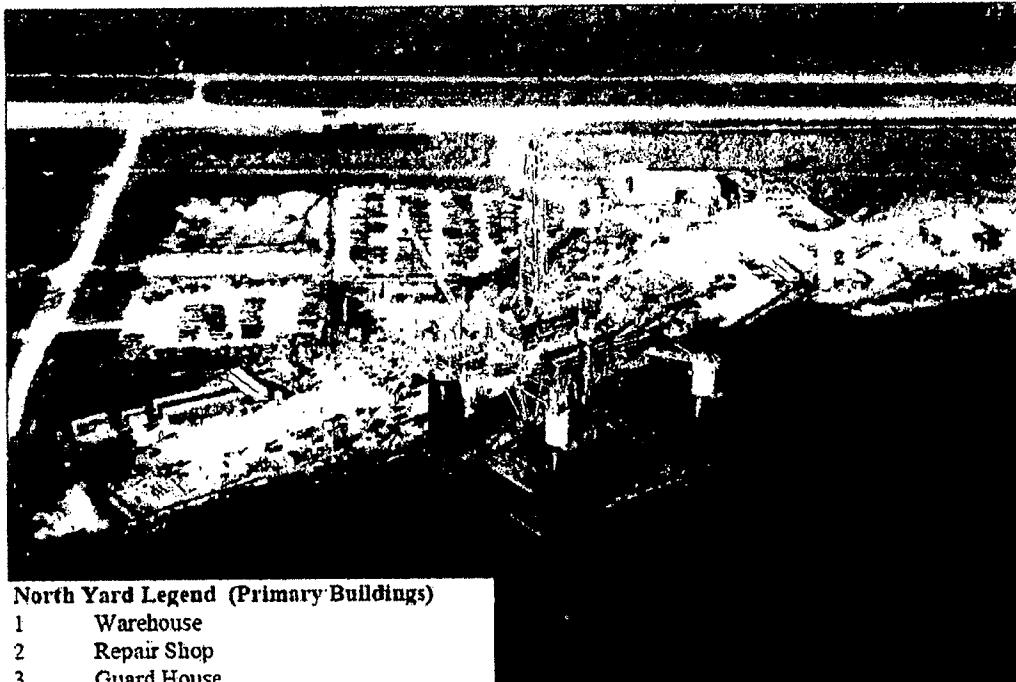
The following vessels listed in the table below are associated with the North Yard.

Other North Yard features include:

- Two warehouses provide covered, secure storage for yard consumables, weather sensitive items, and owner-furnished equipment.

- The site contains several small office and trailer buildings, offices for guards, administrative, engineering, safety, environmental, production, contractors, and customers use. These buildings are currently mostly empty.
- The site is fenced with a locked gate. The elevation of the structures is approximately 6-8 feet above the water level.
- This facility does not have a dry dock.

Figure 6: North Yard Building Data



**South Yard**

The South Yard (TDI Sabine Pass) operations consist of the former Friede Goldman Offshore (FGO) facilities located in Sabine Pass, Texas. This facility is located on the Sabine Pass Channel. This site is intended to be used to repair build mobile offshore drilling and production units as well as components for other rigs. The site is situated within 5 miles of the Gulf of Mexico.

At the time of the survey, this facility was idle and under repair from damage incurred from Hurricane Ike (2008).

The South Yard later was previously owned by TDI-Halter Marine and then FGO. This yard receives fabricated parts from the Orange Yard, which are then installed on the docked marine equipment.

Primary facility features are listed in the table below.

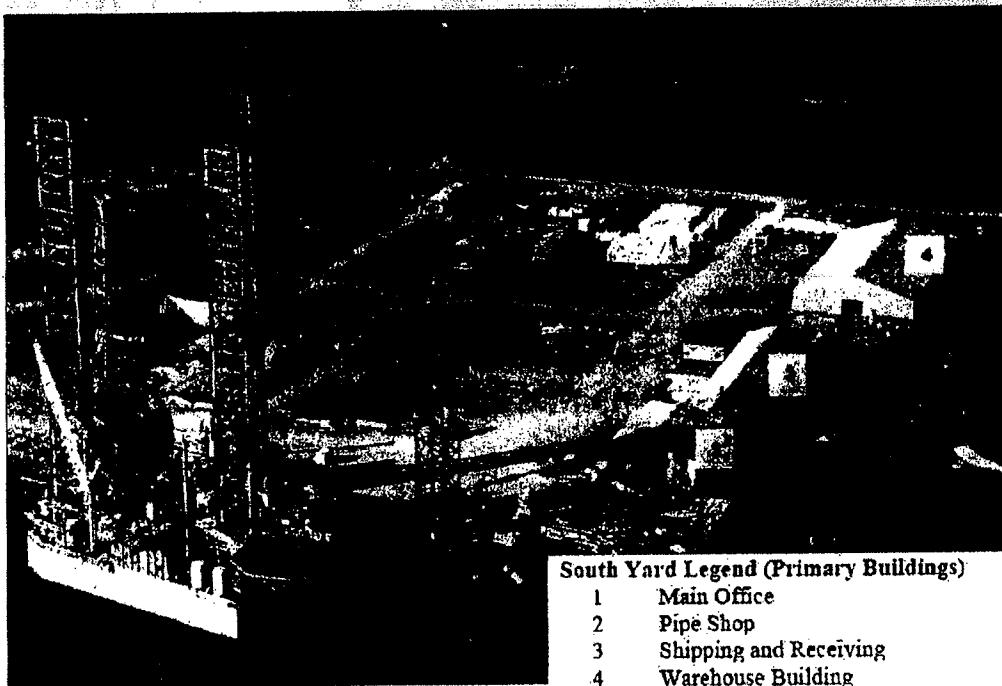
Table 8: South Yard Data

<b>South Yard</b>	
	6830 S. First Ave. Sabine Pass, TX 77655
<b>Total Acreage:</b>	21 acres
<b>Total Building Area:</b>	36,787 sq. ft.
<b>Water Frontage:</b>	1,400 ft.
<b>Water Depth:</b>	20 ft. MLLW
<b>Distance to Open Sea:</b>	6.1 nm
<b>Fabrication Area:</b>	Covered: 45,000 sq. ft. Outside: 300,000 sq. ft.
<b>Quayside Facilities</b>	
<b>Outfitting/Repair Docks</b>	Type: Steel Bhd Length: 778 ft. Water Depth: 22 ft.
<b>Principle Site Equipment:</b>	Multi-Wheel Transport Forklift Trucks Cherry Pickers Portable Personnel Elevators Floating Cranes (2) 1-400 stiff leg, (1) 100t revolving

Other South Yard features include:

- Warehouse facilities provide covered, secure storage for yard consumables, weather sensitive items, and owner-furnished equipment. Currently, these facilities are mostly empty or under repair.
- The site contains several small office and trailer buildings and offices for guards administrative, engineering, safety, environmental, production, contractors, and customers use. These buildings are currently mostly empty or under repair.
- The facility does not have a dry dock.

Figure 7: South Yard Building Data



South Yard Legend (Primary Buildings)

1	Main Office
2	Pipe Shop
3	Shipping and Receiving
4	Warehouse Building

**Texas Facilities Site Risk Characteristics**

<b>TEXAS FACILITY ASSESSMENTS</b>		<b>Comments- For All Texas Facilities Reviewed ; Except Where Indicated Otherwise</b>
<b>SITE LAYOUT / FIRE DIVISION</b>		<p>Spacing between building and other properties is well laid out. Congestion is considered light to moderate for the Orange Yard and light for the other Yards.</p> <p>An incident should be contained to the area of development, i.e. specific equipment area. The exception would be the accumulated loss related to a weather event.</p> <p>Typical runoff drainage is to the water way adjacent to the property or waterways. Generally the topography is flat with approximately 3 to 10 feet elevations from waterways.</p> <p>These operations do not require extensive piping or liquid handling systems.</p>
<b>CONSTRUCTION</b>		<p>A full listing of buildings construction and occupancy is provided in the Appendix. Building structures are mostly non combustible construction for the principle fabrication, repair and storage buildings. The buildings range in age from 6 to 60 years old. Each area is considered a separate fire division with a large single fire or equipment failure limited to one building area.</p> <p>Facilities are built in accordance with insurance/ASME/Building codes for windstorm/temperature extremes/flooding/hurricane potential anticipated for geographic area based on the date the building was constructed.</p> <p>Computer controlled cutting machines are used in the Fabrication Shop. Equipment is controlled by the crafts person operating the machine with typical safety shutoff systems. The equipment does not operate unattended. Emergency shut off "kill switches" are specific to the equipment being used such as welders, cutting machines, etc.</p> <p>There is no significant use of liquid storage tankage at the facilities.</p> <p>Vehicular protection is provided for above ground systems. Primary roads and parking areas are paved.</p>
<b>LOADING/UNLOADING</b>		<p>Receipt of raw materials and distribution of products can be performed by truck or marine vessel. Bulk receipts would be plate steel and equipment and parts associated with rig work.</p> <p>Fabricated onshore components are transferred by crane for attachment to the rigs. Large lifts are performed by a crane. The large potential for loss would be either a heavy dropped load or crane incident.</p>
<b>OTHER STORAGE</b>		<p>Warehouse storage is provided at each site. These are typical heavy steel frame buildings with sheet metal exteriors. Metal racks inside primarily store metal parts and consumables. Combustible loading in the building is considered less than moderate and primarily light. For the locations under repair from Hurricane Ike (North/South Yards), storage is minimal. Each warehouse is considered a single fire area.</p>
<b>OPERATIONS/PROCESS</b>		<p>These operations primarily handle the fabrication, retrofit and repair of heavy metal fixtures and equipment associated with offshore drilling rigs and associated structures. With the exception of the warehouses and offices, the majority of the principle buildings are considered metal working occupancies in which metal is the basic material involved in the manufacturing/fabrication of attachments or portions of drilling rigs or similar marine style objects. This includes occupancies typical to machine, metal working, cutting &amp; welding, assembly metal and metal repair shops. Cranes and barges are used to accomplish marine vessel work.</p> <p>Typically, module fabrication and repair is performed at the Orange Yard and then transported to one of the other yards for installation. The Dock Yard is mostly for assembly on marine vessels which are staged on the drydock. Any appreciable amount of fabrication would be performed at the Orange Yard and barged to the drydock for installation on the rig or ship located on the drydock.</p> <p>Incidents related to this occupancy should be specific to specific equipment failure, crane failure, dropped load, marine vessel collision at dock or small building fire due to electrical equipment.</p>

TEXAS FACILITY ASSESSMENTS		Comments- For All Texas Facilities Reviewed, Except Where Indicated Otherwise.
FIXED ELECTRICAL SYSTEMS		<p>Main power is supplied by a local power authority and is considered reliable. The facilities require power to operate. Backup power can be provided to run portions of the operation. Each location has small to moderate size transformers which are not unique and not owned. The electrical systems at Dock, North and South Yard are minimal compared to the Orange Yard.</p> <p>Due to severe flooding during Hurricane Ike, many of the electrical systems, e.g. wiring, relays, switchgear, motors, etc., were exposed to brackish water and were repaired. Improvements are currently ongoing at the Orange Yard to relocate major electrical conduit from previous lower build elevations to 12 feet or higher throughout the facility. This modification is based on lessons learned from previous record high flooded elevations of 8-10 feet. In addition, portable electrical equipment has been modified to allow for elevation prior to tropical storm and electrical substations damaged during previous storms have been rebuilt on elevated platforms.</p>
UTILITIES		<p>Other typical utilities include compressed air provided by small portable equipment and domestic water provided from the public system. Natural gas is used from a piped local provider.</p> <p>Liquid carbon dioxide and oxygen are stored in tanks in a segregated outside area and used for welding and cutting processes.</p> <p>Numerous Miller 8 Bank welding machines are provided throughout for the Orange Yard.</p>
MAINTENANCE, REPAIRS & INSPECTION		<p>The maintenance and inspection systems at the Texas facilities are similar to Pascagoula. The programs are overseen by Signal Corporate in Pascagoula.</p> <p>The maintenance department is comprised of multiple highly qualified crafts: electrical, welder tool worker, and instrumentation. The department at the site handles the majority of day to day maintenance activities, which are primarily duties related to metal fabrication. Larger projects are completed by qualified contractors.</p> <p>Inspection, testing, and maintenance frequencies are established using manufacturers' recommendations and industry guidelines.</p> <p>Non-destructive examination (NDE) techniques are utilized as necessary for structural and piping integrity inspections.</p> <p>Overall, the programs are established and use written records maintained for equipment and procedures. The maintenance system is run by a ticket system. The majority of historical records at these facilities were destroyed during Hurricane Ike. The facility is in the process of converting over to a computerized records system. No specific date for completion of a record system was indicated.</p> <p>The site has practices and procedures in place to maintain fire protection systems for systems and equipment. The program utilizes training, procedures, inspections and tests, deficiency corrections, and quality assurance. The maintenance program uses a combination of preventive and predictive maintenance techniques.</p>
CONTRACTORS		<p>The site does use some resident contractors. The Orange Yard previously had residential quarters similar to the East Yard facilities. The use of residential quarters has been discontinued and facilities removed.</p> <p>Specialized contractors are used for large special jobs depending on the current work projects. Onsite training and supervision is provided on a specific task basis for contractors.</p>
OPERATIONS		<p>Operational procedures are used for major equipment operations. Best Practice between the Mississippi and Texas locations are used as a guide per corporate directives. Operating procedures are written and available for typical operations.</p> <p>Formal training for new and existing employees, competency testing and certification; refresher training; safety and technical training are provided.</p> <p>Facility personnel involved in hazardous waste management, such as storage of off spec product and response to emergencies, complete a program of classroom instruction or on the job training that teach</p>

TEXAS FACILITY ASSESSMENTS		Comments- For All Texas Facilities Reviewed ; Except Where Indicated Otherwise
		them to perform their duties.
WORK PERMIT		A work permits system is in place for welding, work order, lockout/tagout, confined space, etc. On major jobs blanket permits are typically given. Areas typically considered a welding occupancy do not require permitting.
HOUSEKEEPING		Critical areas were clear and non-congested with idle material or equipment. There was some congestion in areas being used as a staging area for equipment relocated due to area repairs from the recent hurricane. This staging is temporary.
EMERGENCY RESPONSE		The local fire department and local police are the emergency response for the facilities. A written emergency procedure coordinated with local fire department is in place under the existing. The site has excellent emergency preparedness program and procedures for hurricanes.
FIRE BRIGADE RESPONSE		The site provides typical hazardous material response coordination. The site is considered an Incipient emergency response. Fire response for the facility is considered reliable. Access to the facility is considered good.
MANUAL FIRE EXTINGUISHING		Hand and wheeled fire extinguishers are located throughout.  Fire water is provided by the public water system. An onsite distribution system is provided. Hydrants are distributed on the property. The site is connected to the City of Orange fire water system. Fire water systems are not provided at the Dock, North or South Yards. Firewater could be gotten by responding fire departments from adjacent waterways. The level of fire protection at these facilities is considered acceptable.
FIRE PROTECTION		Sprinkler systems are not provided at this site. Buildings that are combustible are of small value. Fire hydrant protection is provided. Local alarm smoke detectors are provided in selected areas of the Orange Yard, which is occupied in the main areas at all times.
EXPOSURES		The Orange Yard is surrounded in three directions by the Sabine River. Several hundred yards to the north are residential sections of the City of Orange, Texas.  The DockNorth and South Yards are bordered on one side by the Sabine River and to all other sides by open areas for several hundred yards.  The Yards are exposed to potential water surge from adjacent water ways and flooding from severe tropical storms. This is further discussed in the storm analysis report section.
INTRUSION / ARSON / TERRORISM		The portions of the property accessible to the public are fenced with access by a 24 hour manned gate. The facilities are accessible from an immediate public road. Vandalism or malicious mischief has not been a problem in past years. Good exterior and perimeter lighting is provided.  The Orange facility is manned and in operation continuously.

**Loss Estimate Discussions**

The identification of potential loss estimates is based on experience and calculations. The loss estimates are representative of the type of consequences possible in a facility such as described within this report. This study only covers the aforementioned facility. All damage and loss potential figures presented pertain to property damage caused directly by mechanical breakdown, fire and/or explosion. These figures do not specifically include fixed costs, other secondary damages, such as pollution or debris removal ensuing subsequent to the events described. All property loss estimate values are reported as Replacement Cost Values (RCV), unless otherwise indicated.

The concepts used for loss estimating in this study are for risk management purposes and represent the loss potential related to mechanical breakdown, fire and explosions of various intensities. While the models selected are believed to be reasonable for the situation, the results are not considered to be absolute. The loss estimates should be utilized only as an indication of the extent or order of magnitude of the potential consequence. The actual consequences may be more or less severe than the reasonably foreseeable conditions that were used in this study.

The loss estimates are categorized as probable maximum (PML) and maximum foreseeable (MFL) loss estimates. The incidents and dollars ranges assigned to each loss estimates are meant to represent any loss which could occur in this dollar range as it relates to physical or time element delay loss.

The largest physical asset or time element loss anticipated at this site would generally be related to:

- Mechanical damage of large valued object due to collapse, collision or failure during operation, maintenance or installation;
- Fire and explosion of energized electrical system or component;
- Fire and explosion related to the use of fired equipment or equipment under pressure;
- Dry dock sinking or collision; and
- Accumulated loss due to a weather event, e.g. Gulf of Mexico tropical storm.

The following discussion of loss types establishes, and is intended to demonstrate creditable types and consequences of events which have historically been evaluated for exposure to facilities.

**Loss Estimates****Probable Maximum Loss (PML)**

This assumes that the initial mechanical failure, fire or/and explosion results in a loss or failure of the immediate equipment instrumentation, detection or suppression facilities, but that within a reasonable time, the secondary defenses such as instrumentation shutoff systems, firewater facilities, shut-off valves etc., operate properly. With respect to construction, the incident would be related to collapse or failure of constructed systems or fire related to an initial startup or testing of equipment. This type of loss description would be representative of the types of loss most probable to occur to these facilities, based on industry experience. The PML accounts for the normal worst possible loss under existing conditions, with the existing protective systems and response features adequately working.

Business interruption (BI) is not considered a significant exposure under the PML loss due to the redundancies in operation within and between Yards for accomplishing work.

The following table of loss estimates is categorized as probable maximum loss (PML). The incidents and dollar ranges assigned to each loss estimate are meant to represent any loss (fire/explosion/mechanical breakdown and ensuing BI) which could occur in this dollar range as it relates to physical or time element delay loss.

Table 9: PML Loss Estimates

PML Location	Scenario 1 (S1)		Scenario (S2)		Scenario Description (BI is 100% for duration of area impacted)
	PD	BI <sup>a</sup> Months	PD	BI <sup>a</sup> Months	
East Yard	<\$1,500,00	2	<\$1,500,000	3	S1 - Administration Bldg or Resident Housing Fire; S2 - Gantry crane collapse with dropped heavy object.
West Yard	<\$500,000	2	<\$1,200,000	3	S1 - Training Building Fire; S2 - Gantry crane collapse with dropped heavy object.
Orange Yd	<\$500,000	2	<\$1,500,000	3	S1 - Building Fire; S2 - Crawler Crane Incident with dropped heavy object.
Dock Yard	<\$150,000	2	<\$1,500,000	3	S1 - Warehouse Incident Fire; S2 - Equipment failure, collapse or dropped heavy object dry dock.
North Yard	<\$150,000	2	<\$500,000	2	S1 - Building damage due collapse or collision with vehicle; S2 - Damage at bulk head due to collision.
South Yard	<\$150,000	2	<\$500,000	2	S1 - Building damage due collapse or collision with vehicle; S2 - Damage at bulk head due to collision.

**Maximum Foreseeable Loss (MFL)**

The MFL considers the largest loss that could result from a single incident at the site. This situation assumes that the initial incident is so large that the active protection systems are rendered inoperative and only the passive protection facilities, such as spacing between exposure areas, are effective. This type of loss description is a worst case scenario, one of

extremely low probability and frequency based on previous industry experience.

The maximum foreseeable loss (MFL) for these facilities is estimated based on major equipment failure due to structural collapse, major building or groups of building on fire, or major equipment failure related to cranes, dry dock or heavy lifting equipment, with the potential for damages to adjacent equipment and building areas.

The following table of loss estimates is categorized as maximum foreseeable loss (MFL). The incidents and dollar ranges assigned to each loss estimate are meant to represent any loss (fire/explosion/mechanical breakdown and ensuing BI) which could occur in this dollar range as it relates to physical or time element delay loss.

Business interruption (BI) in most cases should be mitigated to some extent because of multiple redundancies between facilities. For instance, both the Texas and Mississippi operations have dry dock installations, which could be used for the others work. However, a time cost would be associated with schedule changes and transportation of work activities between Yards. The same applies for many of the work services between the East Yard and Orange Yard which have many common work capabilities which are redundant.

Table 10: MFL Loss Estimates

MFL Location	Scenario 1 (S1)		Scenario (S2)		Scenario Description (* BI considered in PD total, most likely minimal)
	PD	BI months	PD	BI months	
East Yard	<\$2,500,000	*	<\$20,000,000	100% 18 months	S1 - Administration Bldg or Resident Housing Fire; S2 - Gantry crane collapse with dropped heavy object; loss of Dual Carter results in 100% loss of business income associated with use of dry dock.
West Yard	<\$1,500,000	*	<\$2,500,000	100% 2 months	S1 - Training Building Fire; S2 - Major damage to crane, with dropped heavy object and adjacent area damage; BI associated loss related to specific project using equipment.
Orange Yard	<\$1,500,000	*	<\$5,750,000	*	S1 - Building Structure Incident due to collapse and adjacent area damage; S2 - Major crane failure in building dropping major lift of heavy object.
Dock Yard	<\$275,000	*	<\$5,000,000	100% 12 months	S1 - Warehouse Incident Fire ; Structural Failure S2 - Major Dry Dock Equipment failure , structural failure or dropped heavy object dry dock; loss of dry dock results in loss of facility use.
North Yard	<\$275,000	*	<\$1,500,000	100% 1 month	S1 - Building damage due to collapse and adjacent area damage complete loss; S2 - Major damage at bulk head due to collision; options available to conduct work at other location to mitigate BI for use of bulkhead area.
South Yard	<\$275,000	*	<\$1,500,000	100% 1 month	S1 - Building damage due to collapse or collision with vehicle; S2 - Major damage at bulk head due to collision; options available to conduct work at other location to mitigate BI for use of bulkhead area.

**Natural Hazard Loss Estimates**

The largest natural hazard exposures from weather events, which could cause substantial damage to the Yards due to the effects of water and wind could result from aftereffects of a Gulf of Mexico hurricane and tropical storm and flooding due to water surging in adjacent waterways. For these facilities, the accumulated effects from a direct hit of a major hurricane are considered. For other natural hazards such as tornado, earth quake or freezing weather; the frequency of tornados specific to each area is low the facilities are located in low seismic areas; and freezing weather is possible but low frequency. The events are considered either low frequency or low financial exposure events when compared to the potential accumulated impact of flooding and winds. Further discussion of natural hazard exposure and loss estimates are described in the Wind and Water Surge Analysis section of the report.

### **Recommendations/Observations**

There were no major recommendations developed from this review. Previous insurance recommendations are reported for historical purposes and are not considered major recommendations.

#### **Previous Recommendations**

The following recommendations were presented in 2003 under the Ownership identified as ACORN.

#### **02 - 1 Fire Protection System Inspection and Testing**

It is recommended that sprinkler, special extinguishing systems and alarms testing for the buildings are contracted out for inspection and testing per NFPA requirements. This includes the following areas:

Mississippi East Yard Office Building

Mississippi West Administration Building (Leased and Insured by others)

Mississippi West Training Buildings

Port Arthur Administration Office Building at Jefferson Shopping Center (No longer owned)

In addition, if not already provided, all alarm for detection and protection systems should alarm to a constantly attended location.

**SHAI Comment:** Inspection and testing has been implemented as recommended. The Port Arthur offices are no longer owned.

#### **02 - 2 Management Programs**

The site has indicated that under the new ownership and management the best practices used at the Mississippi and Texas sites are to be implemented. Follow-up should be conducted to ensure proper implementation has occurred of these programs by the authority having jurisdiction under the insurance program.

**SHAI Comment:** Best practices have been implemented for and directed by corporate operations located at the Pascagoula East Yard for both the Mississippi and Texas facilities.

**Wind and Storm Surge Analysis (Additional information is provided in the Appendix)**

The purpose of the wind and storm surge loss assessment portion of the report is intended to provide loss estimates of property damage and business interruption for the Signal International facilities located along the United States Gulf coast as it relates to exposure to wind and water surge conditions related to severe tropical storms and hurricanes.

**Analysis Summary**

This tropical storm wind and storm surge loss estimates are developed for risk management purposes only. The results of this study model hypothetical scenarios and worst-case tropical storm/hurricanes that could reasonably be expected to occur based on historical information. The scenario tropical storm/hurricane exposure for each facility is postulated to affect the largest cumulative concentration of Signal International asset property values for each facility evaluated. Therefore the results are postulated as the potential damage estimate from a single tropical storm/hurricane event, at each facility.

To determine the potential loss estimates, a combination of historical hurricanes over the past 100 years in combination with water surge flooding effects resulting from such events were reviewed. Results of this review provide a range of anticipated damages which could result from modeling hypothetical, worst-case hurricanes that could be reasonably expected to occur in each area. These results should not be considered conservative, as they are based on the best available information on hurricane and flooding damage to date.

As time goes on, historical results shall change to reflect the best knowledge which could be expected from those future events. Therefore, damages could be higher if the methods used in this review were recalculated to reflect those future events. It should be noted as further discussed below that Signal has experienced damage from hurricanes from which their experience gained with lessons learned. As a result, improvements to the facilities should assist in mitigation of future events.

The results shown below are from the tropical/hurricane wind and storm surge risk assessment analysis for Signal International.

The Natural Hazard Loss Estimates were determined, as listed in the table below, from water and wind effects of a hurricane.

Table 11: Wind and Water Surge Loss Estimates

Facility	PML			Total NDLE		MFL			Total NDLE		Total NDLE	
	Hurricane PD*	Surge*	PML PD*	Total NDLE	BI PML 100%	Hurricane PD/BI*	Surge*	MFL PD*	Total NDLE	BI PML 100%		
Port Arthur Dock	0.856	0.0428	0.8988	30 days		1.07	0.1284	1.1984	3 months			
Orange	6.825	0.91	7.735	14 days		9.1	1.82	10.92	3 months			
Sabine South	0.348	0.0174	0.3654	30 days		0.435	0.0522	0.4872	3 months			
Sabine North	0.228	0.0114	0.2394	30 days		0.285	0.0342	0.3192	3 months			
Pascagoula West	1.426	0.076	1.501	30 days		2.85	0.152	3.002	3 months			
Pascagoula East	9.62625	0.5134	10.13965	14 days		19.2525	1.0268	20.2793	3 months			

NDLE = Natural Disaster Loss Estimate; PD = Property Damage; PML = Probable Maximum Loss Estimate; BI = Business Interruption; MFL Maximum Foreseeable Loss Estimate

\* = Million Dollars

#### Analysis Description

A major tropical/hurricane event can potentially be very destructive. Major tropical storms and hurricanes develop in the tropical ocean regions from June to November each year and can expose significant danger to industrial property and operations. Destructive forces result from a combination of wind-induced, rainfall and storm surges damage.

This wind and storm surge loss assessment is intended to provide loss estimates for property damage and business interruption from historical and stochastic (hypothetical) tropical storm/ hurricanes for Signal International.

Loss estimates are provided for each facility reviewed in this document and for the single largest cumulative exposure for each facility during a single storm event.

The analysis of both historical and stochastic hurricane storm track scenarios that would constitute worst-case wind and storm surge damage conditions for the Signal International facilities along the United States Gulf coast are considered.

All of the known historical storms and a number of stochastic storm paths were analyzed. Only the worst-case (highest loss estimate), cumulative, single-event results are described in this report.

#### Definitions

**Saffir-Simpson Hurricane Scale** - A 1 to 5 category rating based on the intensity of a hurricane. The rating takes into account wind speed, central pressure, storm surge height, and coastal destruction potential. Wind speed is the determining factor in the rating. Storm surge is a lesser factor because its value is highly dependent on the slope of the continental shelf in the landfall region.

**Category Rating:**

- Category 1 - Winds 74-95 mph, storm surge 4-5 feet above normal.
- Category 2 - Winds 96-110 mph, storm surge 6-8 feet above normal.
- Category 3 - Winds 111-130 mph, storm surge 9-12 feet above normal.
- Category 4 - Winds 131-155 mph, storm surge 13-18 feet above normal.
- Category 5 - Winds >155 mph, storm surge >18 feet above normal.

**Storm Surge** - a large dome of water often 50 to 100 miles wide that sweeps across the coastline near the point where a hurricane makes landfall. The stronger the hurricane and the shallower the offshore water, the higher the surge will be. The National Weather Service forecasters model storm surge using the "Sea, Land and Overland Surges from Hurricanes" (SLOSH) models.

A storm surge, and perhaps a high tide, can cause already rain-swollen rivers to back up and flood.

**Tropical Storm / Hurricane History & Exposure**

The largest natural hazard exposures from weather events, which could cause substantial damage to the facilities, would be due to the effects of water and wind. These effects could result from aftereffects of a Gulf of Mexico hurricane and tropical storm and flooding due to water surging in adjacent waterways. Damage occurs from this exposure to assets and cause delays to production due to lack of services for repair to damaged areas.

Based on recent history, Signal International locations have experienced damage from Hurricane Katrina (2005) at its Pascagoula facilities, East and West Yards and from Hurricane Ike (2008) at the Texas facilities along the Sabine River.

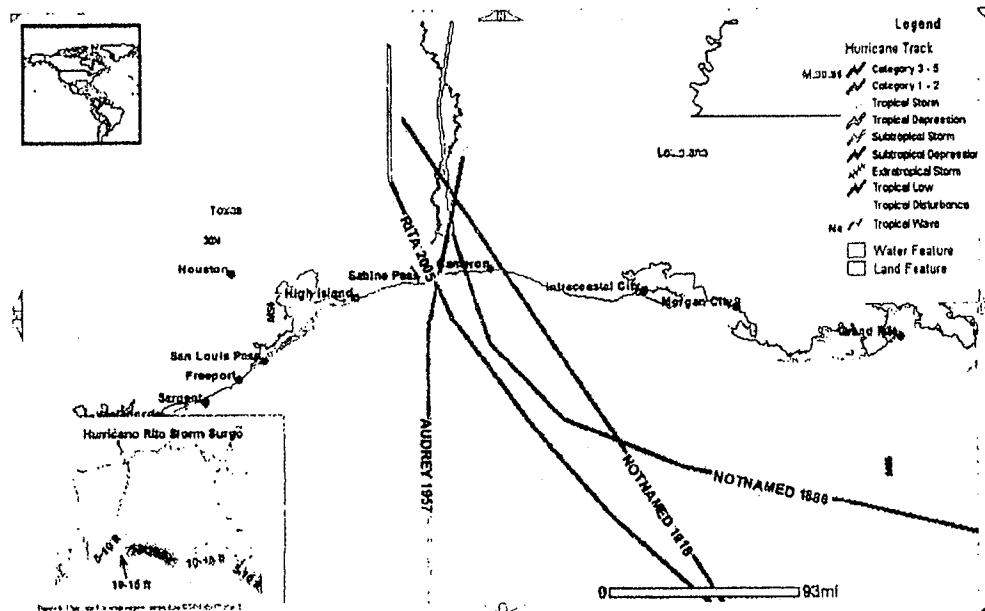
**Texas Facilities**

History has demonstrated that the hurricane season presents a serious threat to activities in the Sabine Pass Channel and Port Arthur area. This area been affected by tropical cyclone

activity at an average frequency of 0.9 events per year during the 109-year period 1871-1979.

The hurricane season along the Gulf Coast is late May through early November. According to the US Navy, during the 109-year period from 1871 through 1979 there were 101 tropical cyclones that were within 180 nautical miles of Port Arthur, an average of about 0.9 per year. There have been 4 significant hurricanes exposed to this area (within 65 miles) in recorded history, of which 2 were Category 3 (including Hurricane Rita 2005) and 1 Category 4-5 (Hurricane Audrey). During the most recent hurricane in 2005 (Rita), peak gust winds between 99 and 120 mile per hour were experienced and surge conditions up to 9.4 feet above mean sea level in the general area of Port Arthur. In addition, Hurricane Ike (2008) was a Category 2 hurricane when it hit landfall, however, it was a Category 3-4 prior to landfall. Ike caused significant wind, surge and flooding effects to the Sabine River area including Signal's Texas facilities.

Figure 8: Historical Hurricane Track Storm Surge Data ([www.maps.csc.noaa.gov/hurricanes/](http://www.maps.csc.noaa.gov/hurricanes/))(Note (Hurricane Ike is not included in this data).



Based on the history of this region, this area is considered a moderate exposure to hurricane activity, primarily due to the frequency of significant events based on historical data. However, history has shown that the Port Arthur area is vulnerable to the occurrence of destructive storm surge associated with tropical cyclones. The vulnerability of the area has been proven by three storms, Hurricane Audrey in June 1957, Hurricane Carla

(Category 5) in September 1961 and Hurricane Ike (Category 2; 4 prior to landfall) in September 2008, which directly impacted Texas to the west of this location. Audrey, which moved inland some 16 miles east of the Sabine Pass, was one of the most severe hurricanes to strike the coast of the United States in the month of June. It generated a surge of 9.4 ft above MSL at the Sabine Pass. Several lives were lost, and over 1.5 million dollars of damage was suffered in the area. Hurricane Carla, the largest storm to strike the Texas coast since 1900, crossed the coast approximately 200 miles southwest of Sabine Pass; surge heights of 9.4 ft above MSL at Sabine Pass were recorded. During Hurricane Ike, surge heights were reported between 14 to 15 feet along the Sabine River in the area of the Signal properties. Eight feet of water was reported above ground level in Orange, Texas where the Orange Yard is located.

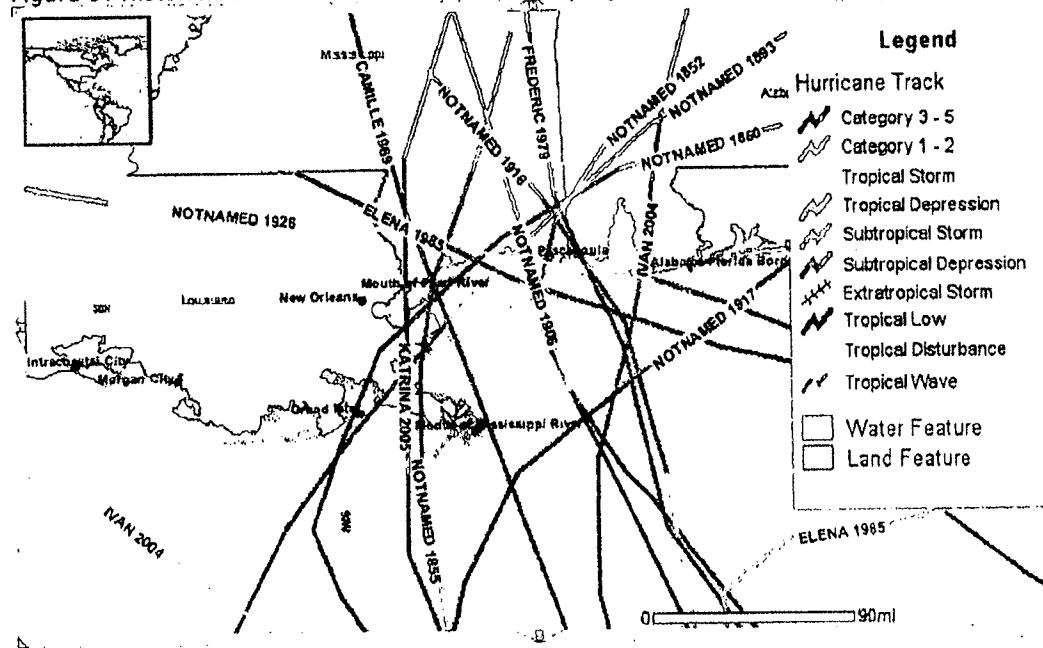
Hurricane Ike was the third most destructive hurricane to ever make landfall in the United States. By the early morning hours of September 5, Ike was a Category 4 hurricane, with maximum sustained winds of 145 mph (230 km/h). Ike had the highest Integrated Kinetic Energy (IKE) of any Atlantic storm in history. IKE is a measure of storm surge destructive potential, similar to the Saffir-Simpson Hurricane Scale, though the IKE is more complex and in many ways more accurate. On a scale that ranges from 1 to 6, where 6 is the highest destructive potential, Ike earned a 5.6 on September 11 at 12:30 p.m. EDT. In comparison to Ike, hurricanes Katrina and Wilma, both from the 2005 Atlantic hurricane season peaked at 5.1. Had Ike made landfall as a Category 3 or higher, the hurricane would have likely had a record breaking storm surge and the potential for damage could have been worse than what was seen with Hurricane Katrina. However, Ike made its final landfall in Baytown, Texas, United States as a Category 2 hurricane. In the United States, 82 people were killed, and 202 are still missing. Damages from Ike in US coastal areas are estimated at \$27 billion (2008 USD), with additional damage of up to \$4 billion in Cuba, and \$500 million in the Bahamas, amounting to a total of \$31.5 billion in damages for the United States, Cuba, and the Bahamas alone. Ike was the third costliest U.S. hurricane of all time, behind Hurricane Andrew of 1992 and Hurricane Katrina of 2005.

### Mississippi Facilities.

Like Texas, Mississippi is one of five Gulf Coast states that remain vulnerable to the effects of hurricanes. Since 1900, Mississippi has been significantly affected by 10 named hurricanes including Hurricane Camille in 1969 Ivan in 2004 and Hurricane Katrina in 2005. According to the US Navy, the hurricane season poses a serious threat to Pascagoula. The hurricane season along the Gulf Coast is late May through early November. During the 107-year period from 1886-1992, an average of one tropical cyclone or hurricane has passed within 180 nautical miles of Pascagoula each year.

Based on the history of this region this area is considered a high to severe exposure to hurricane activity, primarily due to the frequency of significant events based on historical data. History has shown that this area is vulnerable to the occurrence of destructive storm surge associated with tropical cyclones. There have been 13 significant hurricanes exposed to this area (within 65 miles) in recorded history, of which three were Category 4 and one was a Category 5 (Hurricane Camille).

Figure 9: Historical Hurricane Track Storm Surge Data ([www.maps.csc.noaa.gov/hurricanes/](http://www.maps.csc.noaa.gov/hurricanes/)).



Hurricane Camille was one of the benchmarks in the American hurricane experience. Hurricane Camille was one of the most intense storms of any kind to ever strike mainland

America in modern history. At the time, Hurricane Camille produced the highest hurricane tidal surge ever recorded in the United States. According to the U.S. Army Corps of Engineers (Mobile District 1970), a still-water, high water mark, of 22.6 feet above mean tide, was measured.

Hurricane Katrina's winds and storm surge reached the Mississippi coastline on the afternoon of August 28, 2005, beginning a two-day path of destruction through central Mississippi. The storm surge was reported by MSNBC as 28-foot storm surge flooding 6 to 12 miles inland. It was reported that the water surge level in Pascagoula was 18 feet.

#### Analysis Methodology – Hurricane Wind

This assessment methodology describes the technical resources used to estimate the potential property and business interruption losses at the locations evaluated. The assessment results provide specific information on the estimated exposure to the particular facilities referenced in this report.

The hurricane wind-induced damage assessment was conducted using the "Insurance Risk Assessment System" Risk Search". RiskSearch® is an on-line service database of site-specific property risk information for insurers, reinsurers, banks, real estate companies, public sector organizations, and financial intermediaries. RiskSearch utilizes RMS' Detailed Loss Module (DLM) which simulates natural disaster events using state-of-the-art computer models and sophisticated engineering databases to generate a site specific hazard analysis including an estimate of potential loss using location specific information. This method calculates the probability of losses reaching different damage levels.

RiskSearch is a knowledge-based computer modeling system which interprets the financial risk from catastrophic natural hazards such as earthquakes and hurricanes. RiskSearch is a widely accepted methodology in the insurance industry, and is used extensively by major companies. RiskSearch can analyze the risk to a single location subject to a single hurricane scenario.

Historical storm data indicates that the highest winds in a hurricane are approximately 10 to 12 miles from the center of the eye. Hurricane force winds continue 15 to 25 miles from the center of the eye, and tropical storm force winds exist up to 150 miles from the center of the eye. Winds within a hurricane are generally stronger on the windward (right) side of the storm track. When modeling hurricane damage potential, the model evaluates this information and estimates the peak wind gust speed at the subject site. Projected wind speed, in conjunction with the physical plant location, primary and secondary structural characteristics, and reported property values, are used to evaluate a property damage loss

estimate. The level of physical property damage, in conjunction with the reported business interruption values, is calculated.

Hurricanes are often accompanied by heavy rains and are the cause of much river flooding in inland areas. Exposed locations along the coast will be subject to the effects of intense rain and the hurricane storm surge. The low pressure associated with the hurricane (particularly the eye of the hurricane) causes the ocean water to be uplifted. This effect is enhanced by the wave action and the strong winds.

Analysis Methodology - Hurricane Storm Surge

The extent of inland penetration by hurricane-induced storm surge flooding examined for this report is based on the SLOSH models of the National Weather Service and the 1993 report by Texas A&M University Hazard Reduction and Recovery Center prepared for the Texas Division of Emergency Management. The Texas A&M report provides a series of storm surge maps for the Texas Gulf Coast defining the "Maximum Envelope of Water" (MEOW) for each category of hurricane, based on the SLOSH models. These maps are included in the section "Storm Surge Maps" of this report.

If a hurricane makes landfall during high tide, 1 to 1.5 feet can be added to the storm surge height. To evaluate the worst-case scenario for this study, a high tide condition is considered.

The property damage loss estimates and business interruption loss estimates from the storm surge-induced flooding were determined using the U.S. Army Corps of Engineers 1989 report entitled "Tri-State Hurricane Property Loss Study".

A chart showing the height of a storm surge for a Category 5 hurricane versus time before and after landfall is included in the SLOSH Map section of the report. The height of a storm surge varies inversely to the forward speed of a particular hurricane. For example, the slower the forward speed of the hurricane, the higher the storm surge.

Once the hurricane strikes land and moves inland, it generally recedes in strength since it is no longer being powered by the rising warm, moist ocean air. When this occurs, the remaining tropical storm will release intense rain over the inland area.

Rainfall associated with a hurricane can add to the potential flooding exposure. The maximum rainfall associated with a hurricane, measured in inches, can be estimated by dividing 100 by the forward movement speed, measured in miles per hour, of a hurricane. If this rainfall occurs ahead of the hurricane making landfall, the rainfall and storm surge

would be cumulative. To evaluate the worst-case scenario for this study, the impacts of rainfall associated with the hurricane are considered in the evaluation of storm surge/flood loss estimates developed for this report.

In addition, rainfall alone can cause flooding in historically flood-prone areas along the coast that are not subject to storm surge flooding.

#### Hurricane Wind & Water Surge Study Limitations

This hurricane wind and storm surge study is developed for risk management purposes only. The historical hurricane tracks selected for this study are models of actual hurricanes documented in the last 100 years. The hurricane modeling effects are hypothetical and the worst-case scenario that can reasonably be expected to occur. The hurricane is postulated to affect the largest concentration of property values for a worst-case, single hurricane event to one location. As with any study of this kind, loss estimates can be significantly affected by small changes in the input parameters and by actual physical characteristics of specific plant facilities. Therefore, the results are only an estimate of the extent or order of magnitude of the potential losses from historical storms. Actual losses may be more or less severe than those made for this study.

Property Damage Loss Estimates developed as a result of this study do not include additional costs, such as debris removal or any secondary damages such as fire, explosion, fines, fees, pollution, extra expense, or other liabilities.

The probability that the wind-induced damage estimated by the Risk Search model will not be exceeded is 90%.

The Property Damage Loss Estimates are developed from computer analysis of statistical and probability information. The estimates represent an average for the many types of occupancies and types of construction encountered. An analysis can be performed for a particular occupancy and construction type if a specific Loss Estimate is desired for a selected site location.

Signal International LLC

Report Appendix Reference Page

SHAI December 2009

## References

CBIZ Valuation Group, LLC. A Summary Appraisal of Tangible Property Assets for Signal International, LLC, Pascagoula, Mississippi as of November 14, 2008. Draft. Dallas: CBIZ, 2008.

National Oceanic and Atmospheric Administration (NOAA). 1 1 2009. 7 1 2009 <<http://www.noaa.gov/>>.

NOAA Coastal Service Center- Historical Storm Tracks. 11209. 24 12 2009  
<<http://maps.csc.noaa.gov/hurricanes/viewer.html>>.

NOAA. Hurricane Preparedness - National Hurricane Center - Slosh Model. 1 1 2009. 24 12 2008  
<<http://www.nhc.noaa.gov/HAW2/english/surge/slosh.shtml>>.

Risk Management Services. RMS. 1 1 2009. 22 12 2008 <<http://www.rms.com/>>.

Signal International, LLC. Signal International, LLC. 1 1 2009. 7 1 2008 <<http://www.signalint.com/>>.

US Federal Emergency Management Agency. FEMA Map Service. 1 1 2009. 24 12 2008  
<<http://msc.fema.gov/webapp/wcs/stores/servlet/info?storeId=10001&catalogId=10001&langId=-1&content=floodZones&title=FEMA%20Flood%20Zone%20Designations>>.

Signal International

## Building Construction Summary

SHAI December 2008

Location	Building Name	# Bldg	Sq. Ft.	Year Built	WCO Class	Roof Type	Exterior Wall	Sprinklers	Auto Alarms	Manual Alarms
East Yard	Administration	1	36,484	1998	3-Non-Combustible	Metal	Metal Siding on Metal Studs	2004 Yes	Yes	
East Yard	Compressor Building	1	1,317	1997	3-Non-Combustible	Metal	Metal Siding on Metal Studs	09/ No	No	
East Yard	Electrical Shop	1	6,378	1997	3-Non-Combustible	Metal	Metal Siding on Metal Studs	09/ No	No	
East Yard	Fab Pipe Shop	1	85,175	1993	3-Non-Combustible	Metal	Metal Siding on Metal Studs	09/ No	No	
East Yard	Mechanics Shop	1	14,040	1994	3-Non-Combustible	Metal	Metal Siding on Metal Studs	09/ No	No	
East Yard	North Avenue	1	4,613	1995	3-Non-Combustible	Metal	Metal Siding on Metal Studs	09/ No	No	
East Yard	North Avenue	1	918	1995	3-Non-Combustible	Metal	Metal Siding on Metal Studs	09/ No	No	
East Yard	Security And First Aid	1	3,575	1998	3-Non-Combustible	Metal	Metal Siding on Metal Studs	09/ No	No	
East Yard	South Restrooms	1	19,601	1994	3-Non-Combustible	Metal	Metal Siding on Metal Studs	09/ No	No	
East Yard	Warehouse 3	1	11,361	2004	3-Non-Combustible	Metal	Metal Siding on Metal Studs	09/ No	No	
East Yard	Work/Pail	1	2,030	1990	3-Non-Combustible	Metal	Metal Siding on Metal Studs	09/ No	No	
East Yard	Guard Shack	1	64	2003	1-Frame	Metal	Metal Siding on Wood Studs	09/ No	No	
East Yard	Time Clock	1	330	2003	1-Non-Combustible	Putty Membrane	Fiberglass Paneling	09/ No	No	
East Yard	Storage	1	80	2004	1-Frame	Metal	Vinyl Siding	09/ No	No	
East Yard	Document Control	1	3,860	2004	1-Frame	Metal	Metal Siding on Wood Studs	09/ No	No	
East Yard	Warehouse 1	1	18,304	1997	3-Non-Combustible	Metal	Metal Siding on Metal Studs	09/ No	No	
East Yard	Warehouse 2	1	15,399	1995	3-Non-Combustible	Metal	Metal Siding on Metal Studs	09/ No	No	
East Yard	Office	1	1,184	1995	3-Non-Combustible	Metal	Metal Siding on Metal Studs	09/ No	No	
East Yard	Safety Trainer	1	572	2003	3-Non-Combustible	Metal	Metal Siding on Metal Studs	09/ No	No	
East Yard	Hazardous Waste	1	1,155	1998	2-Non-Combustible	Metal	Metal Siding on Metal Studs	09/ No	No	
East Yard	Storage	1	152	1990	2-Non-Combustible	Metal	Metal Siding on Metal Studs	09/ No	No	
East Yard	Office	1	1,340	2004	1-Frame	Metal	Metal Siding on Metal Studs	09/ No	No	
East Yard	Office	1	500	2004	1-Frame	Metal	Wood Siding on Studs	09/ No	No	
East Yard	Office	1	1,212	2004	1-Frame	Metal	Wood Siding on Studs	09/ No	No	
East Yard	Office	1	810	2004	3-Non-Combustible	Metal	Wood Siding on Metal Studs	09/ No	No	
East Yard	Time Clock	1	313	2004	1-Frame	Metal	Wood Siding on Wood Studs	09/ No	No	
East Yard	Guard Shack	1	35	2004	1-Frame	Metal	Wood Siding on Wood Studs	09/ No	No	
East Yard	Paycheck Office	1	44	2004	1-Frame	Metal	Wood Siding on Wood Studs	09/ No	No	
East Yard	Trailer (1)	1	1,869	2004	3-Non-Combustible	Metal	Metal Siding on Metal Studs	09/ No	No	
East Yard	Office	1	147	2003	3-Non-Combustible	Metal	Metal Siding on Metal Studs	09/ No	No	
East Yard	Fuel Station	1	487	2003	3-Non-Combustible	Metal	Concrete Block	09/ No	No	
East Yard	Superintendent Trades (6)	1	3,504	2003	3-Non-Combustible	Metal	Metal Siding on Metal Studs	09/ No	No	
East Yard	Machinist Department	1	230	2003	3-Non-Combustible	Metal	Metal Siding on Metal Studs	09/ No	No	
East Yard	Police Department	1	147	2003	3-Non-Combustible	Metal	Metal Siding on Metal Studs	09/ No	No	
East Yard	Office	1	135	2003	3-Non-Combustible	Metal	Metal Siding on Metal Studs	09/ No	No	
Resident Housing	Bunkhouses (19)	1	18,416	1997	1-Frame	Metal	Wood Siding on Studs	09/ Yes	No	
Resident Housing	Kitchen	1	2,154	1995	1-Frame	Metal	Stucco on Metal Studs, W Siding on Studs	09/ Yes	No	
Resident Housing	Laundry	1	854	1997	1-Frame	Metal	Wood Siding on Studs	09/ Yes	No	
Resident Housing	Lounge (2)	1	1,728	1997	1-Frame	Metal	Wood Siding on Studs	09/ Yes	No	
Resident Housing	Shower	1	854	1997	2-Frame	Metal	Wood Siding on Studs	09/ Yes	No	
Resident Housing	Office-Hangar	1	428	2004	1-Frame	Metal	Wood Siding on Studs	09/ No	No	
Resident Housing	Guard Shack	1	152	2004	1-Frame	Metal	Vinyl Siding	09/ Yes	No	
Resident Housing	Lounge/Shower	1	2,795	1997	1-Frame	Metal	Wood Siding on Studs	09/ No	No	
Resident Housing	Bunkhouses (2)	1	9,589	1997	1-Frame	Metal	Wood Siding on Studs	09/ No	No	
			273,054							
West Yard	Fab Pipe Shop	1	12,276	1997	3-Non-Combustible	Metal	Metal Siding on Metal Studs	09/ No	No	
West Yard	Mechanics Shop	1	1,347	1997	3-Non-Combustible	Metal	Metal Siding on Metal Studs	09/ No	No	
West Yard	Screenroom	1	827	1996	2-Brick Masonry	Metal	Concrete Block	09/ No	No	
West Yard	Warehouse	1	8,150	1997	3-Non-Combustible	Metal	Metal Siding on Metal Studs	09/ No	No	
West Yard	Security Building	1	3,000	1997	1-Frame	Metal	Metal Siding on Metal Studs	09/ No	No	
West Yard	Electrical Storage	1	434	2003	3-Non-Combustible	Metal	Metal Siding on Metal Studs	09/ No	No	
West Yard	Waste Storage	1	740	2003	3-Non-Combustible	Metal	Metal Siding on Metal Studs, None	09/ No	No	
West Yard	Compressor Building	1	404	2004	1-Frame	Metal	Wood Siding on Wood Studs	09/ No	No	
West Yard	Guard House	1	274	2003	1-Frame	Metal	Metal Siding on Metal Studs	09/ No	No	
West Yard	Time Clock	1	206	2007	3-Non-Combustible	Metal	Metal Siding on Metal Studs	09/ No	No	

## Signal International

## Building Construction Summary

SHA1 December 2008

West Yard	Production	1	1,804	2008 1-Frame	Metal	Metal Siding on Wood Studs	08 No	No
West Yard	Tool Pad/ton	1	349	2008 3-Hon-Combustible	Metal	Concrete Block	08 No	No
West Yard	Storage	1	164	1995 3-Pre-Ashesive	Metal (Alum brw)	Poured Concrete	08 No	No
Training Building	Office/Training	2	19,203	1997 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	No
Orange Yard	Shop/Palce	1	25,925	1975 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	No
Orange Yard	Computer Terminal/Phone Room	1	612	1945 4-Masonry Non-Combustible	Block (Members)	Solid Brick	08 No	No
Orange Yard	Guard House	1	192	2005 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	No
Orange Yard	Light Fab Shop Ext.	1	25,240	1942 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	No
Orange Yard	Fab Shop, NCS Bay 1,2,3	1	115,686	1942 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	No
Orange Yard	Maintenance Building	1	17,187	1942 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	No
Orange Yard	Altar Shop	1	1,440	1969 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	No
Orange Yard	Paint Storage	1	2,752	1942 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	No
Orange Yard	Pipe Shop	1	7,049	1942 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	No
Orange Yard	Pipe Warehouse	1	16,184	1942 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	No
Orange Yard	Power Plants (13)	1	200	1995 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	No
Orange Yard	Pre-Assembly	1	68,352	1942 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	No
Orange Yard	Time Clock Building	1	244	1997 1-Frame	Metal	Wood Siding on Studs	08 No	No
Orange Yard	Warehouse #3	1	20,567	1942 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	No
Orange Yard	Warehouse #4	1	19,928	2008 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	No
Orange Yard	Warehouse #5	1	15,990	1975 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	No
Orange Yard	Warehouse Storage	1	1,104	1942 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	No
Orange Yard	Maintenance Building Drive Through	1	675	1940 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	No
Orange Yard	Security Housing	1	316	1995 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	No
Orange Yard	Time Clock, Small	1	64	2008 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	No
Orange Yard	Assembly Area	1	566	1998 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	No
Orange Yard	Pl #1	1	22,113	1975 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	No
Orange Yard	Warehouse #5	1	23,171	2005 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	No
Orange Yard	Warehouse #2	1	21,390	1975 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	No
Orange Yard	Light Fab Shop West	1	32,240	1942 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	No
Orange Yard	Warehouse Isoler	1	6,582	1975 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	No
Buckley & Son	Office	1	1,655	2003 2-Infused Masonry	Metal	Metal Siding on Metal Studs	08 No	No
Buckley & Son	Shop	1	12,144	1942 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	No
Dock Yard, Dry Dock	Dry Dock #1	1	150,343	1942 3-Hon-Combustible	Name	Metal Siding on Metal Studs	08 No	No
Dock Yard, Dry Dock	Clock Shed	1	352	1998 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	No
Dock Yard, Dry Dock	Guard House	1	167	1998 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	No
Dock Yard, Dry Dock	Tool Repair Room	1	2,851	1984 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	No
Dock Yard, Dry Dock	Warehouse #1	1	16,330	1998 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	Yes
Dock Yard, Dry Dock	Warehouse #2	1	1,377	1995 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	No
Dock Yard, Dry Dock	Cafeteria	1	1,413	2005 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	No
Dock Yard, Dry Dock	Security Hut	1	252	2008 1-Frame	Metal	Metal Siding on Metal Studs	08 No	No
Dock Yard, Dry Dock	Time Keeper	1	171	2005 1-Frame	Asphalt Shingle	Wood Siding on Studs	08 No	No
North Yard	Shipping/Receiving	2	6,602	1992 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	No
North Yard	Repair Shop	1	2,708	1992 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	No
North Yard	Warehouse	2	6,441	1998 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	No
North Yard	Guard/Time Clock	3	451	2005 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	No
South Yard	Guard House	1	131	1988 1-Frame	Metal	Metal Siding on Metal Studs	08 No	No
South Yard	Main Office	1	3,049	1977 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	No
South Yard	Pipe Shop	1	4,107	1988 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	No
South Yard	Safety First Aid	1	658	1977 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	No
South Yard	Shipping/Receiving	1	658	1977 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	No
South Yard	Warehouse #1	1	13,430	1968 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	No
South Yard	Warehouse #2	1	10,415	1968 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	No
South Yard	Time Clock	1	278	1998 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	No
South Yard	Electric Shop	1	3,700	1968 3-Hon-Combustible	Metal	Metal Siding on Metal Studs	08 No	No

Signal International LLC

Report Appendix Flood Zone Definitions SHA1 December 2009

**Definitions of FEMA Flood Zone Designations** (See FEMA website for additional details)

**High Risk Coastal Areas**

**V Zone**

Coastal areas with a 1% or greater chance of flooding and an additional hazard associated with storm waves. These areas have a 26% chance of flooding over the life of a 30-year mortgage. No base flood elevations are shown within these zones.

**High Risk Areas**

**A Zone**

Areas with a 1% annual chance of flooding and a 26% chance of flooding over the life of a 30-year mortgage. Because detailed analyses are not performed for such areas; no depths or base flood elevations are shown within these zones.

**Moderate to Low Risk Areas**

**B/C Zones**

Areas outside the 1-percent annual chance floodplain, areas of 1% annual chance sheet flow flooding where average depths are less than 1 foot, areas of 1% annual chance stream flooding where the contributing drainage area is less than 1 square mile, or areas protected from the 1% annual chance flood by levees. No Base Flood Elevations or depths are shown within this zone. Insurance purchase is not required in these zones.

Signal International LLC

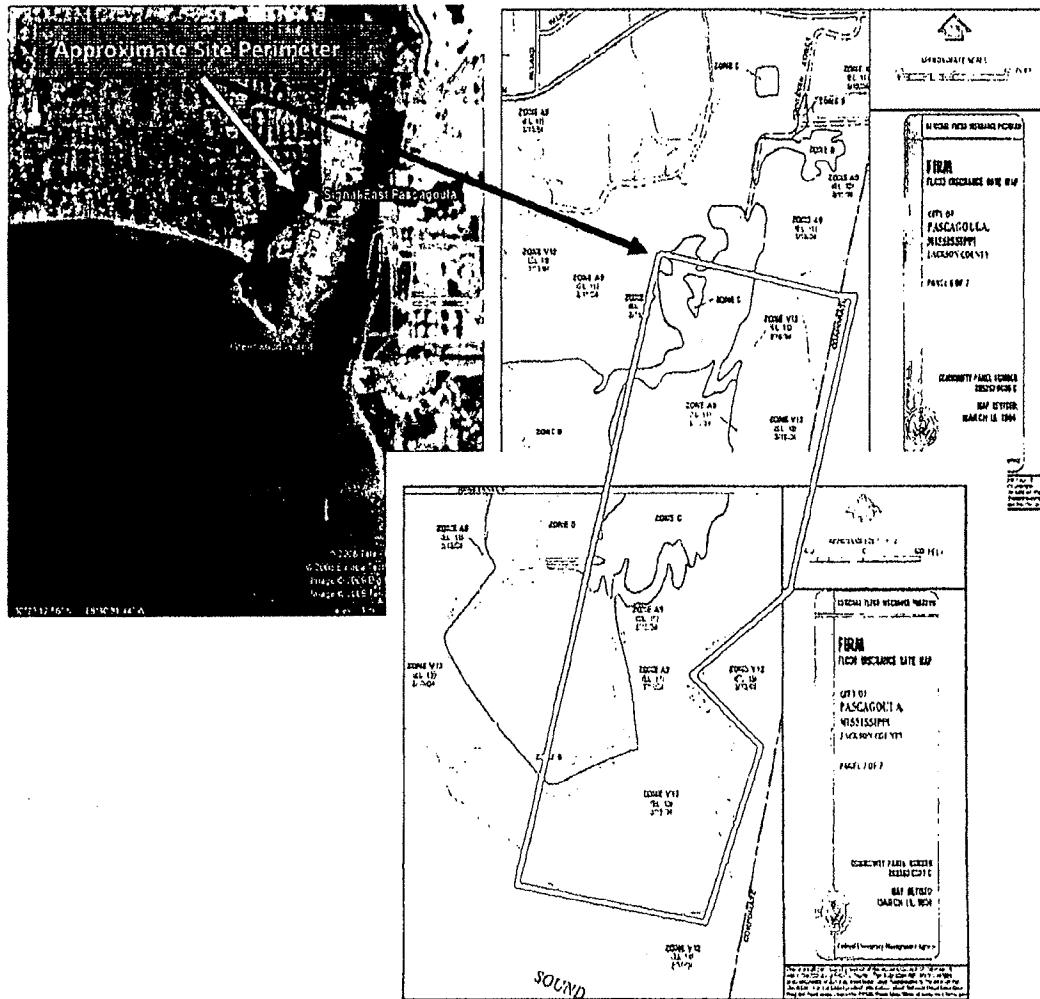
Appendix Wind and Water Surge Data

**Flood Zone Discussion - East Yard**

601 Bayou Casotte Parkway  
Pascagoula, MS 39568

30°20'36.97"N  
88°30'54.10"W

The FEMA maps below indicated that the site is in a combination of A, B, C and V Zones. These areas are located in marked elevations by the diagrams below as ranging between 10 – 13 feet (Note the C Zone elevation may be higher than 13 feet). The Administration, Offices, Warehouses 1, 2, & 3, and the Main Camp are located primarily in a C Zone according to the diagrams. It was indicated during the site survey that these areas did not have standing water following Hurricane Katrina. A surge level of 18 feet was recorded at the shore road to the west of this site during Hurricane Katrina. It was observed these areas are an uphill location from the shore yard, fabrication and repair areas of the yard which have standing water in the range of 5 feet during Katrina.



Signal International LLC

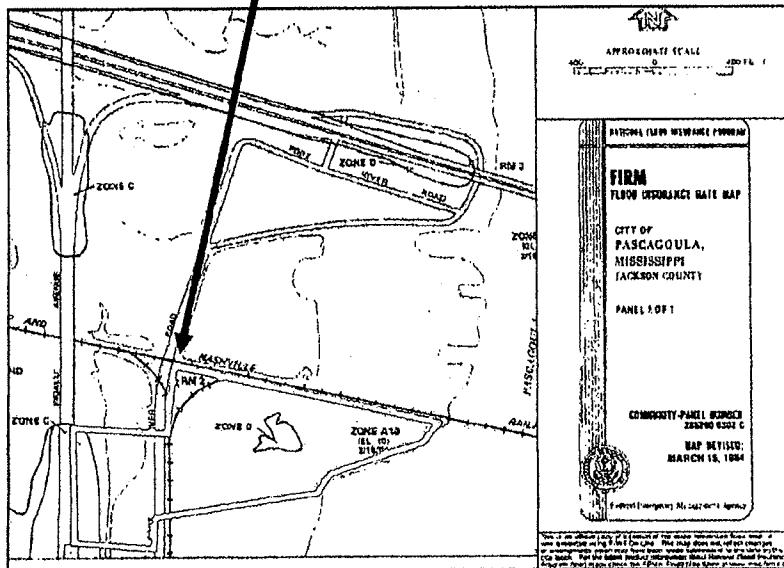
Appendix Wind and Water Surge Data

**Flood Zone Discussion West Yard**

3500 Port Authority Road  
Pascagoula, MS 39567

30°22'8.84"N  
88°34'8.87"W

The FEMA maps below indicated that the site is in a combination of A, B and C Zones. These areas are located in marked elevations by the diagrams below as 10 feet (Note the Band C Zone elevations are most likely higher than 10 feet). The Training Building is in a C Zone according to the diagram. It was indicated during the site survey that the Training Building did not have standing water following Hurricane Katrina. A surge level of 18 feet was recorded in this area during Hurricane Katrina. It was observed the Training Building is at higher elevation than the West Yard shore yard, fabrication and repair areas.



Signal International LLC

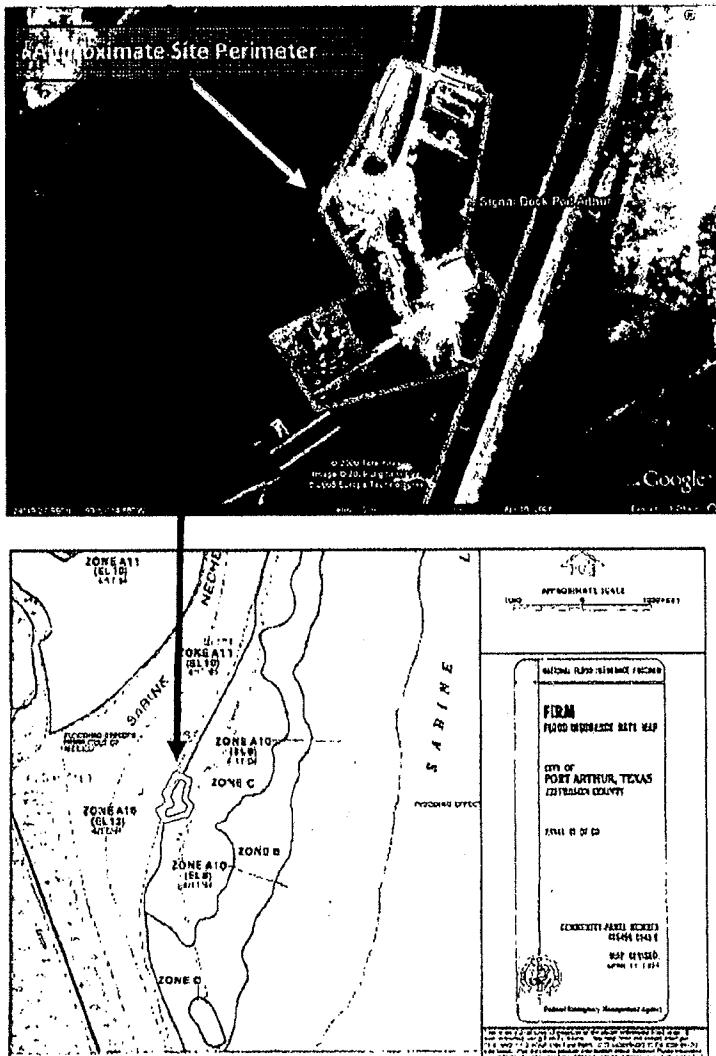
Appendix Wind and Water Surge Data

**Flood Zone Discussion Dock Yard**

2500 Martin Luther King Blvd.  
Port Arthur, TX 77640

29°49'30.09"N  
93°57'8.29"W

The FEMA maps below indicated that the site is in a combination of A and C Zones. These areas are located in marked elevations by the diagrams below as 10 -12 feet (Note the C Zone elevation may be slightly higher than 10 - 12 feet). It was indicated during the site survey that this area experience relatively little damage from standing water as a result of Hurricane Ike (2008). A surge level of approximately 15 feet was recorded in this area during Hurricane Ike. It was observed that this area overall is relatively flat with a slight slope to the Dry Dock.



Signal International LLC

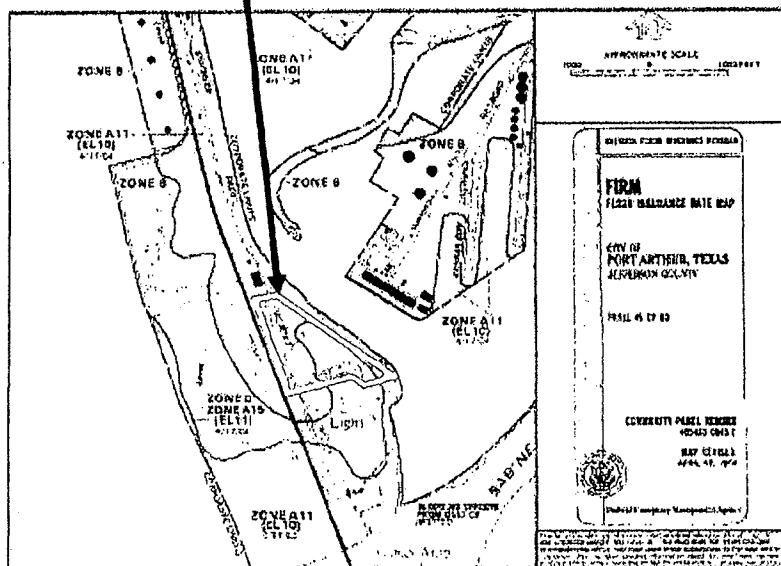
Appendix Wind and Water Surge Data

**Flood Zone Discussion North Yard**

2350 South Gulfway Drive  
Port Arthur, TX 77642

29°49'59"N  
93°58'1.44"W

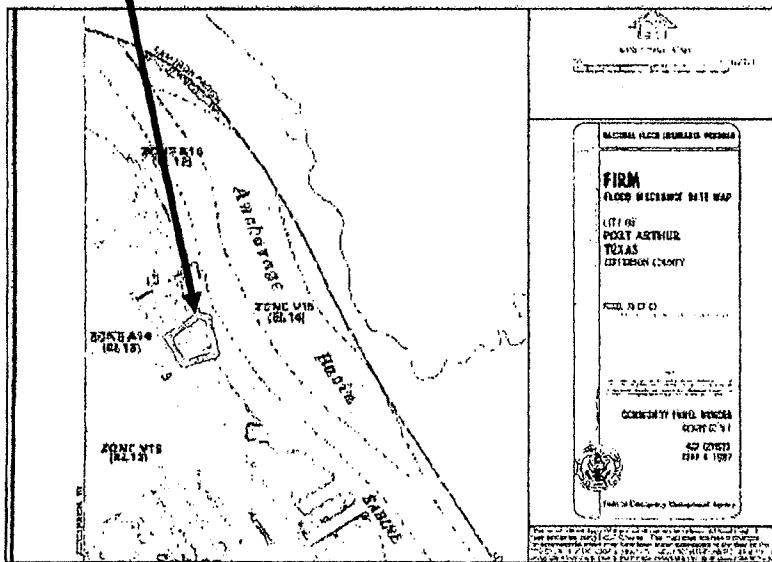
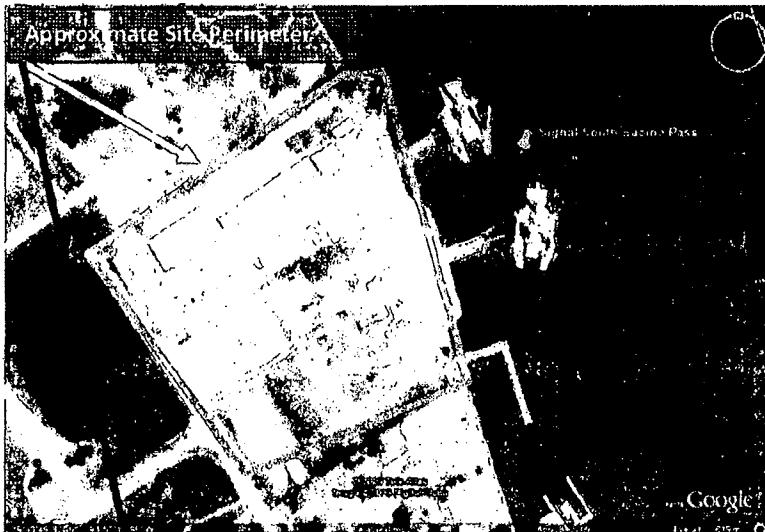
The FEMA maps below indicated that the site is in a combination of A and B Zones. These areas are located in marked elevations by the diagrams below as 10 -11 feet. During the site survey this area experience damage from standing water as a result of Hurricane Ike (2008). A surge level of approximately 15 feet was recorded in this area during Hurricane Ike. It was observed that this area overall is relatively flat to the water shore area.



Signal International LLC

#### Appendix Wind and Water Surge Data

The FEMA maps below indicated that the site is in a combination of A and V Zones. These areas are located in marked elevations by the diagrams below as 12 -13 feet. During the site survey this area experience damage from standing water as a result of Hurricane Ike (2008). A surge level of approximately 15 feet was recorded in this area during Hurricane Ike. It was observed that this area overall is relatively flat to the water shore area.



Signal International LLC

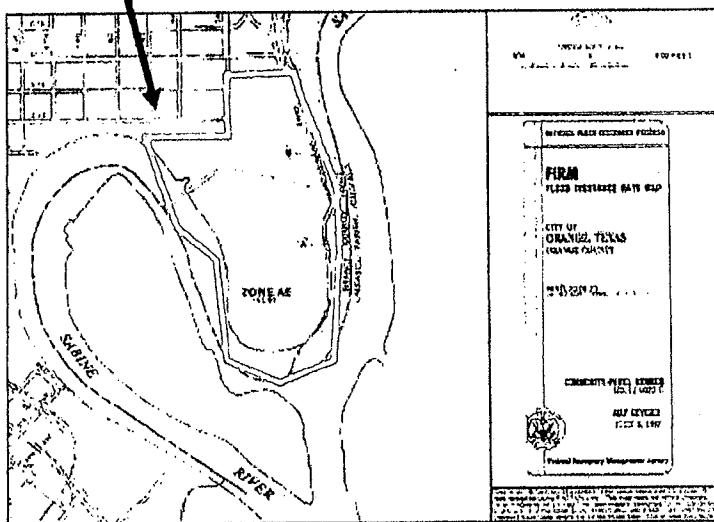
Appendix Wind and Water Surge Data

**Flood Zone Discussion Orange**

91 West Front Street  
Orange, TX 77630

30° 5'27.13"N  
93°43'40.61"W

The FEMA maps below indicated that the site is in a combination of A Zone. This area is located in marked elevation by the diagrams below as 8 feet. It was indicated during the site survey that this area experience damage from standing water as a result of Hurricane Ike (2008) in the range of up to 8 feet above ground level. A water level above ground level was reported by the local media as 8 feet in general. Further south of this area surge levels of approximately 15 feet were recorded. In the area of the Sabine River during Hurricane Ike. It was observed that this area overall is relatively flat with a slight with minimal slope to the water.

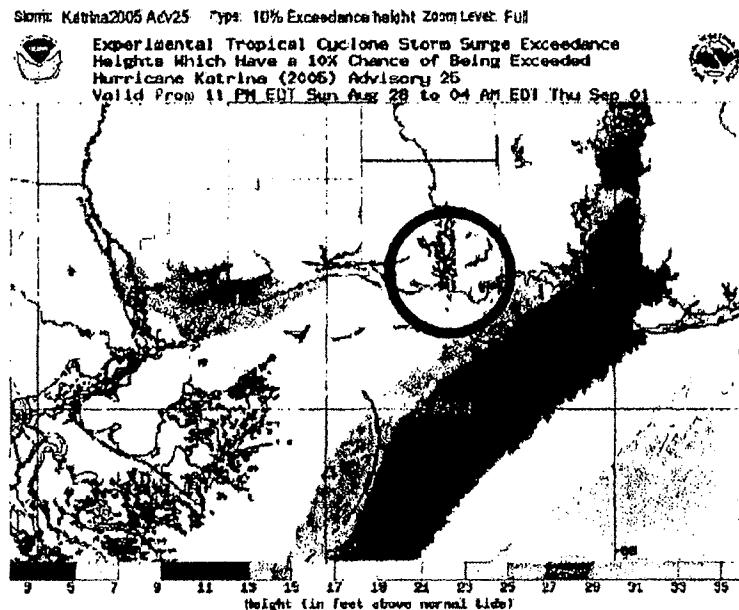


Signal International LLC

Appendix Wind and Water Surge Data

**Water Surge Discussion Pascagoula, MS**

The following diagram indicates the predicted surge levels prior to Hurricane Katrina's arrival on shore. Note for that the surge prediction for this area ranged of 17ft to 19 ft is accurate.



Signal International LLC

Appendix Wind and Water Surge Data

**Water Surge Discussion Port Arthur/Orange, Texas**

The following diagram indicates the predicted surge levels prior to Hurricane Ike's arrival on shore. Note for the Sabine River areas the surge was predicted in the range of 17ft to 19 ft and 19 ft to 21ft, which was accurate.

Storm: Ike2008 Adv42 ▾ Type: 10% Exceedance height ▾ Zoom Level: W Gulf ▾

